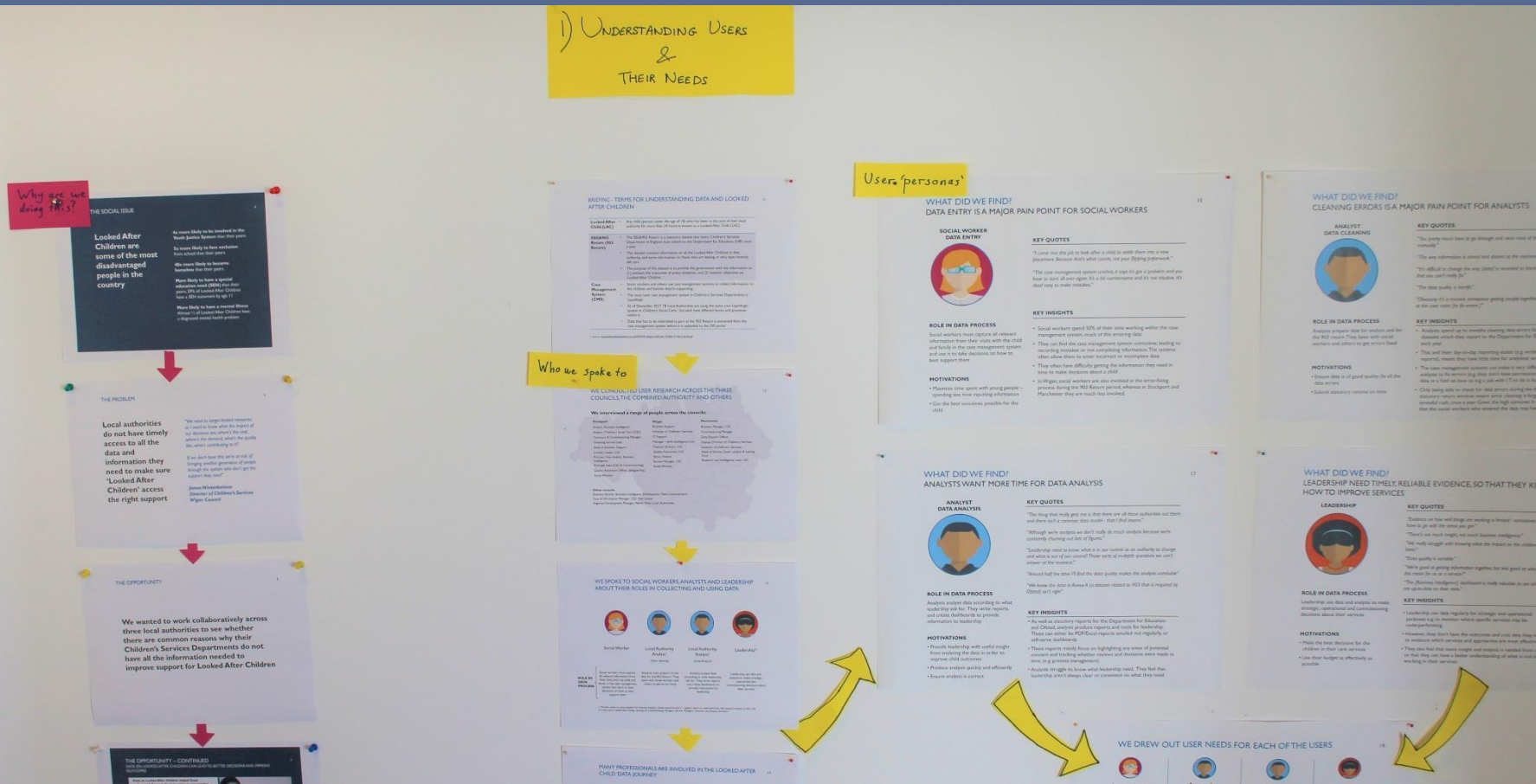
GMCA GREATER MANCHESTER COMBINED AUTHORITY | MANCHESTER CITY COUNCIL | Wigan Council | STOCKPORT METROPOLITAN BOROUGH COUNCIL | Ministry of Housing, Communities & Local Government | SOCIAL FINANCE

BETTER DATA ON CHILDREN IN CARE DISCOVERY PROJECT: BUILDING A COMMON APPROACH

SUMMARY DECK – USER RESEARCH FINDINGS, ALPHA RECOMMENDATION & BUSINESS CASE

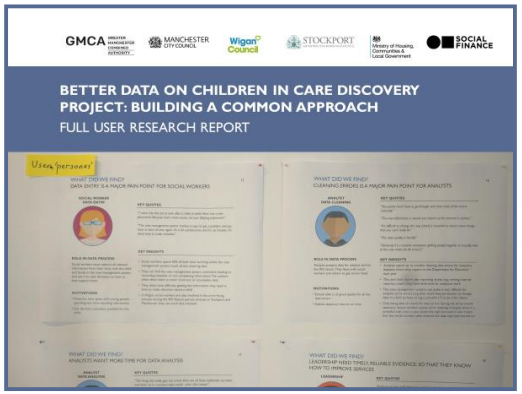


THIS DOCUMENT SUMMARISES OUR FINDINGS: IT'S SUPPORTED BY A FULL USER RESEARCH REPORT AND A BENEFITS CASE

We wrote up our findings in three documents:

Overall Summary Report

Detailed User Research Report



Benefits Case

THIS PROJECT WAS A CROSS-COUNCIL COLLABORATION

Project overview

Objective: Understand and improve how Children's Services Departments collect and use data on Looked After Children

Partners: GMCA, Manchester, Stockport, Wigan, Social Finance and MHCLG's Local Digital Collaboration Unit

Funding: MHCLG's Local Digital Fund and the Christie Foundation – both funders are focused on supporting Local Authorities to create common solutions to shared problems

The partners

MANCHESTER CITY COUNCIL

GMCA GREATER MANCHESTER COMBINED AUTHORITY

STOCKPORT METROPOLITAN BOROUGH COUNCIL

Ministry of Housing, Communities & Local Government

Wigan Council

SOCIAL FINANCE

AS A DISCOVERY, THIS PROJECT WAS ABOUT UNDERSTANDING THE SPACE WE ARE WORKING IN

The aim of a discovery project is to find out whether users need a service and whether other services exist. A discovery involves carrying out user research and analysing policies, laws and business needs

Government Digital Service

1. Read more about the different phases of an agile project at the GDS website: https://www.gov.uk/service-manual/agile-delivery

Looked After Children are some of the most disadvantaged people in the country

4x more likely to be involved in the Youth Justice System than their peers

5x more likely to face exclusion from school than their peers

40x more likely to become homeless than their peers

More likely to have a special education need (SEN) than their peers. 59% of Looked After Children have a SEN statement by age 11

More likely to have a mental illness Almost ½ of Looked After Children have a diagnosed mental health problem

Local authorities do not have timely access to all the data and information they need to make sure Looked After Children access the right support

"We need to target limited resources so I need to know what the impact of our decisions are, where's the cost, where's the demand, what's the quality like, what's contributing to it?

If we don't have this we're at risk of bringing another generation of people through the system who don't get the support they need"

James Winterbottom
Director of Children's Services
Wigan Council

We wanted to work collaboratively across three local authorities to see whether there are common reasons why their Children's Services Departments do not have all the information needed to improve support for Looked After Children

THE OPPORTUNITY – CONTINUED

DATA ON LOOKED AFTER CHILDREN CAN LEAD TO BETTER DECISIONS AND IMPROVE OUTCOMES

Data on Looked After Children helped Essex understand the cost of not investing in preventative services and helped build the business case to commission specialist interventions for children on the edge of care.

Case Study:

When John was referred to the Multi-Systemic Therapy (MST) service at the age of 13, he was at high risk of care or custody for a number of reasons: assaulting a teacher and three years of school absence, daily cannabis misuse, association with drug dealers, and threatening family and neighbours with knives and swords.

His mother, who has ongoing alcohol dependency issues, was balancing the need to manage his behaviour with looking after his severely autistic younger brother. His step-father, part of the local travelling community, was largely absent.

When the MST therapist started working with the family, their first priority was to put in place a safety plan due to the risk of physical aggression and access to weapons. As part of this, the mother now does a daily check for weapons and drugs, and has established a de-escalation plan for difficult situations.

Simple changes in the mother's parenting style, such as giving clear and consistent expectations, and committing to spend at least 30 minutes a day with John, have led to great improvements.

He has not taken drugs or been aggressive in the community, has stopped hanging out with antisocial peers, and has taken up a positive activity, fishing. John is due to finish the MST intervention shortly, and there are currently no plans for him to enter care.

OUR WORK WAS SPLIT INTO THREE MAIN PHASES

We spoke to social workers, analysts and leadership about how they collect and use data. From this, we captured their key user needs.

We investigated in more depth what errors occur and how they're cleaned currently to see if there was best practice to share, or opportunities for improvements.

We brainstormed and iterated potential solutions to the user needs. We then prioritised the user needs and created a roadmap for how data and digital can support Looked After Children achieve better outcomes.

1) Understanding users and their needs

BRIEFING - TERMS FOR UNDERSTANDING DATA AND LOOKED AFTER CHILDREN

Looked After Child	• Any child (person under the age of 18) who has been in the care of their local authority for more than 24 hours is known as a Looked After Child
SSDA903 Return (903 return)	• The SSDA903 return is a statutory dataset that every Children's Services Department in England must submit to the Department for Education (DfE) once a year • This dataset contains information on all the Looked After Children in that authority, and some information on those who are leaving or who have recently left care • The purpose of this dataset is to provide the government with the information to: (1) evaluate the outcomes of policy initiatives, and (2) monitor objectives on Looked After Children
Case Management System	• Social workers and others use case management systems to collect information on the children and families they're supporting • The most used case management system in Children's Services Departments is Liquidlogic • As of December 2017, 78 local authorities are using the same core Liquidlogic system in Children's Social Care,[1] but each have different forms and processes within it • Data that has to be submitted as part of the 903 return is extracted from the case management system before it is uploaded to the DfE portal

1. Source: http://www.initiativesincare.co.uk/PDF/INC-Report-SOCIAL-WORK-IT-March2018.pdf

THE '903 RETURN' IS THE MAIN STANDARD DATASET COLLECTED ON LOOKED AFTER CHILDREN

What we knew already

The '903 return' is the key dataset on Looked After Children. Initial conversations across GMCA and Regional Information Groups suggested that data cleaning and limited insight were the two key problems with the 903 return:

- **Data Cleaning:** the process of preparing this dataset takes several months. Data cleaning is particularly frustrating for analysts.
- **Insight:** the data collected as part of the 903 return isn't often used because (1) it doesn't provide the right information to help inform decisions; and (2) it is 6-18 months out of date by the time it has been cleaned, submitted to the DfE and returned to local authorities.

What we wanted to find out

Why does it take so much time to clean this data?

What decisions do leadership make on Looked After Children?

- *Does the 903 return give them the information needed to make these decisions?*
- *If not, why not?*

Would it be possible to keep this data clean and up-to-date, ready for use throughout the year?

WORKING WITH MANCHESTER, WIGAN AND STOCKPORT ENABLED US TO UNDERSTAND DIFFERENT PROCESSES AND SYSTEMS

The Greater Manchester Combined Authority selected Manchester, Stockport and Wigan because their varied sizes and systems provided a diverse sample from which to better understand data on Looked After Children.

Because these three councils are metropolitan boroughs, we also approached other councils to determine whether there were major differences around data collection, processing and analysis that needed to be taken into consideration.

We concluded that conducting a discovery project in Manchester, Stockport and Wigan would provide the insight needed to identify problems and opportunities relevant to other local authorities.

High level statistics for the councils

Metric	Manchester	Stockport	Wigan
Population	5,400,00[1]	2,900,00[2]	3,200,00[3]
Looked After Child population	1,200[4]	500[5]	600[6]
Children's Services Ofsted rating	Requires improvement	Good	Good
Case management system	Micare	EIS	Liquidlogic

Sources 1) https://secure.manchester.gov.uk/info/200088/statistics_and_intelligence/438/population, 2) (2017): ONS UK, 3) (2017): ONS UK, 4) (2016): https://www.manchester.gov.uk/download/downloads/id/24126/jsna_cyp_-_looked_after_children.pdf, 5)(2016): www.stockportjsna.org.uk/2016-jsna-analysis/looked-after-children/ 6) (2019): http://www.bridgewater.nhs.uk/ashtonleighwigan/children-in-care/

WE ASKED EACH COUNCIL TO PROVIDE A LONG-LIST OF PEOPLE INVOLVED IN THE 903 RETURN PROCESS

Together, we then identified people from across the three main user groups involved in the 903 return process. We wanted to create a representative sample from which to understand the pain points and opportunities related to data on children in care.

SOCIAL WORKERS

ANALYSTS

LEADERSHIP

We spoke to an equal number of male and female social workers

We spoke to an equal number of male and female analysts

We spoke to 5 men and 7 women in leadership positions

The social workers we spoke to were aged between 30 and 50

The analysts we spoke to were aged between 30 and 40

The people in leadership roles that we spoke to were aged between 35 and 55 years old

They had been working as social workers for 5+ years

Most had been working as analysts in Children's Services for 5+ years, although two were newer

They had mostly been working in Children's Services for 10+ years

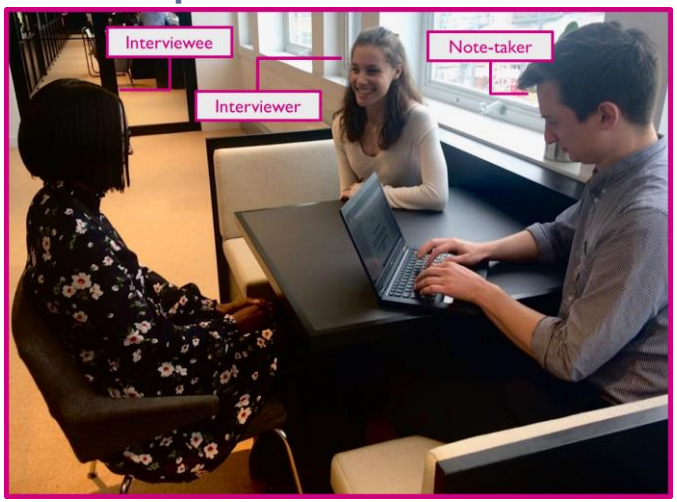
WE CONDUCTED USER RESEARCH WITH 29 PEOPLE FROM ACROSS THE MAIN USER GROUPS

We spoke to the key people involved in data and decision-making on Looked After Children:

	Council	Social workers	Analysts	Leadership			
				Service management	*Business management*	*Directors & Deputy Directors*	*Other*
Lead Authorities	***Stockport***	• Social Worker	• Children's Social Care Analysts x3	• Fostering Service Lead • Locality Leader, CSC	• Contracts & Commissioning Manager • Head of Business Support	• Principal Lead (Children's Social Care & Commissioning)	• Quality Assurance Officer, Safeguarding
Lead Authorities	***Wigan***	• Social Worker	• Senior Analyst • Manager, Joint Intelligence Unit	• Service Manager, Children's Social Care		• Practice Director, Director of Children's Services	• IT Support • Quality Assurance • Business Support
Lead Authorities	***Manchester***		• Data Support Officer • Research & Intelligence Lead, CSC	• Head of Service, South Locality & Leaving Care	• Business Manager, Children's Social Care • Commissioning Manager	• Director of Children's Services • Deputy Director of Children's Services	
Reference Group	***Leicestershire***				• Business Partner, Business Intelligence Development		
Reference Group	***East Sussex***						• Data and Information Manager
Reference Group	***North West Authorities***						• Regional Development Manager

WE HELD SEMI-STRUCTURED INTERVIEWS AND THEN SYNTHESISED OUR NOTES TO FIND KEY THEMES

Interview process

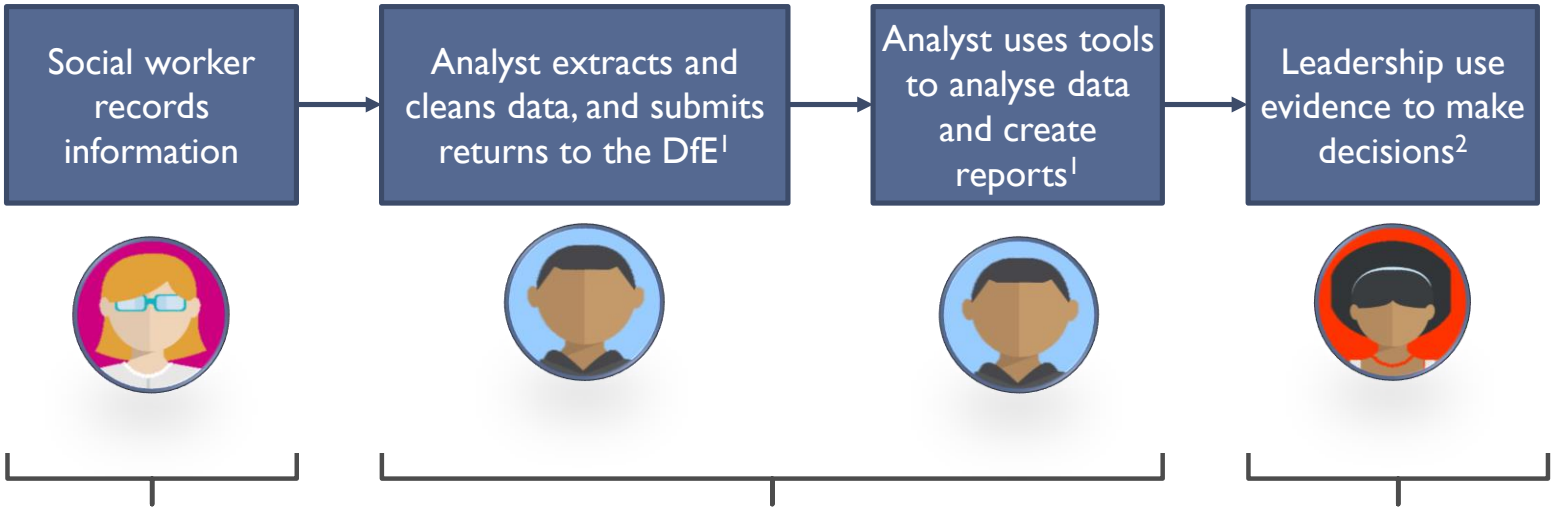


- We ran 45 minute semi-structured interviews, mainly in person with some over the phone or video
- We interviewed one person at a time, so we could get detailed and independent responses
- We used two interviewers: one lead whilst the other took full verbatim notes to capture all the details
- For an example interview script, please see slide 20 of our full user research report

Synthesis process

- We ran synthesis sessions with the interviewers and a team member not present in the interview to bring an external objective view
- During synthesis, each team member read the verbatim script and wrote a post-it on every key point they noted
- We then collected these observations by theme for each user

EACH GROUP OF USERS IS INVOLVED IN A DIFFERENT PART OF THE LOOKED AFTER CHILD 'DATA JOURNEY'



We asked social workers about how they record and clean data on Looked After Children

We asked analysts about how they clean data and run analysis

We asked leadership about decisions they make on Looked After Children and what data they use to make these decisions

1. We also spoke to some people from business support, quality assurance and I.T. support teams to understand how they support analysts in their role
2. In this report, leadership includes: Business & Commissioning Managers, Service Managers, Directors and Deputy Directors

WHAT DID WE FIND?

DATA ENTRY IS A MAJOR PAIN POINT FOR SOCIAL WORKERS

SOCIAL WORKER DATA ENTRY

ROLE IN DATA PROCESS

Social workers must capture all relevant information from their visits with the child and family in the case management system and use it to take decisions on how to best support them.

MOTIVATIONS

- Maximise time spent with young people – spending less time inputting information
- Get the best outcomes possible for the child

KEY QUOTES

"I came into this job to look after a child, to settle them into a new placement. Because that's what counts, not your flipping paperwork."

"The case management system crashes, it says it's got a problem and you have to start all over again. It's a bit cumbersome and it's not intuitive. It's dead easy to make mistakes."

KEY INSIGHTS

- Social workers spend 50% of their time working within the case management system, much of this entering data
- They can find the case management system unintuitive, leading to recording mistakes or not completing information. The systems often allow them to enter incorrect or incomplete data
- They often have difficulty getting the information they need in time to make decisions about a child
- In Wigan, social workers are also involved in the error-fixing process during the 903 Return period, whereas in Stockport and Manchester they are much less involved

WHAT DID WE FIND?

CLEANING ERRORS IS A MAJOR PAIN POINT FOR ANALYSTS

ANALYST
DATA CLEANING

ROLE IN DATA PROCESS

Analysts prepare data for analysis and for the 903 return. They liaise with social workers and others to get errors fixed.

MOTIVATIONS

- Ensure data is of good quality; fix all the data errors
- Submit statutory returns on time

KEY QUOTES

"You pretty much have to go through and clear most of the errors manually."

"The way information is stored and shared at the moment is archaic."

"It's difficult to change the way [data] is recorded so there's some things that you can't really fix."

"The data quality is horrific"

"Obviously it's a massive annoyance getting people together to actually look at the case notes [to fix errors.]"

KEY INSIGHTS

- Analysts spend up to three months cleaning data errors for statutory datasets which they report to the Department for Education each year
- This, and their day-to-day reporting duties (e.g. writing internal reports), means they have little time for analytical work
- The case management systems can make it very difficult for analysts to fix errors (e.g. they don't have permission to change data in a field so have to log a job with I.T. to do it for them)
- Only being able to check for data errors during the three month statutory return window means error cleaning is largely done in a stressful rush, once a year. Given the high turnover, it also means that the social workers who entered the data may have moved on

WHAT DID WE FIND?

ANALYSTS WANT MORE TIME FOR DATA ANALYSIS

ANALYST
DATA ANALYSIS

ROLE IN DATA PROCESS

Analysts analyse data according to what leadership ask for. They write reports and create dashboards to provide information to leadership.

MOTIVATIONS

- Provide leadership with useful insight from analysing the data in order to improve child outcomes
- Produce analysis quickly and efficiently
- Ensure analysis is correct

KEY QUOTES

"The thing that really gets me is that there are all these authorities out there and there isn't a common data model - that I find insane."

"Although we're analysts we don't really do much analysis because we're constantly churning out lists of figures."

"Leadership need to know: what is in our control as an authority to change and what is out of our control? Those sorts of in-depth questions we can't answer at the moment."

"Around half the time I'll find the data quality makes the analysis unreliable"

"We know the data in Annex A (a dataset related to 903 that is required by Ofsted) isn't right"

KEY INSIGHTS

- As well as statutory reports for the Department for Education and Ofsted, analysts produce reports and tools for leadership. These can either be PDF/Excel reports emailed out regularly, or self-serve dashboards
- These reports mainly focus on highlighting any areas of potential concern and tracking whether reviews and decisions were made in time (e.g. process management)
- Analysts struggle to know what leadership need. They feel that leadership aren't always clear or consistent on what they need

WHAT DID WE FIND?

LEADERSHIP NEED TIMELY, RELIABLE EVIDENCE, SO THAT THEY KNOW HOW TO IMPROVE SERVICES

LEADERSHIP

ROLE IN DATA PROCESS

Leadership use data and analysis to make strategic, operational and commissioning decisions about their services.

MOTIVATIONS

- Make the best decisions for the children in their care services
- Use their budget as effectively as possible

KEY QUOTES

"Evidence on how well things are working is limited - sometimes you just have to go with the sense you get."

"There's not much insight, not much business intelligence."

"We really struggle with knowing what the impact on the children has been."

"Data quality is variable."

"We're good at getting information together, but less good at: what does this mean for us as a service?"

"The [Business Intelligence] dashboard is really valuable to see what teams are up-to-date on their visits."

KEY INSIGHTS

- Leadership use data regularly for strategic and operational purposes e.g. to monitor where specific services may be underperforming
- However, they don't have the outcomes and cost data they need to evidence which services and approaches are most effective
- They also feel that more insight and analysis is needed from data so that they can have a better understanding of what is and isn't working in their services

THE KEY USER NEEDS ARE:

As a social worker

I need: easy and quick access to relevant case information
So I can: make the right decisions for the child

I need: to spend less time entering data and more time with the child and family
So I can: build a strong relationship and make the best decisions for the child

I need: a case management system that is intuitive to use
So I can: enter data easily and correctly

As an analyst (Data Cleaning)

I need: data to be inputted correctly
So I can: have more time free to do analysis

I need: the ability to test for and fix errors throughout the year
So I can: stop errors from building up

I need: the ability to identify and fix multiple errors at the same time
So I can: stop manually going through errors one-by-one

I need: to spend less time chasing social workers and others (e.g. case management system providers) to correct data
So I can: spend more time doing analysis

As an analyst (Data Analysis)

I need: good quality data (e.g. an accurate representation of the child's experience)
So I can: be confident that analysis is accurate

I need: to know what analysis leadership need
So I can: plan ahead to get leadership the right analysis

I need: the ability to share and link data across services
So I can: do more effective analysis

As leadership

I need: access to up-to-date data
So I can: base decisions on what's happening currently

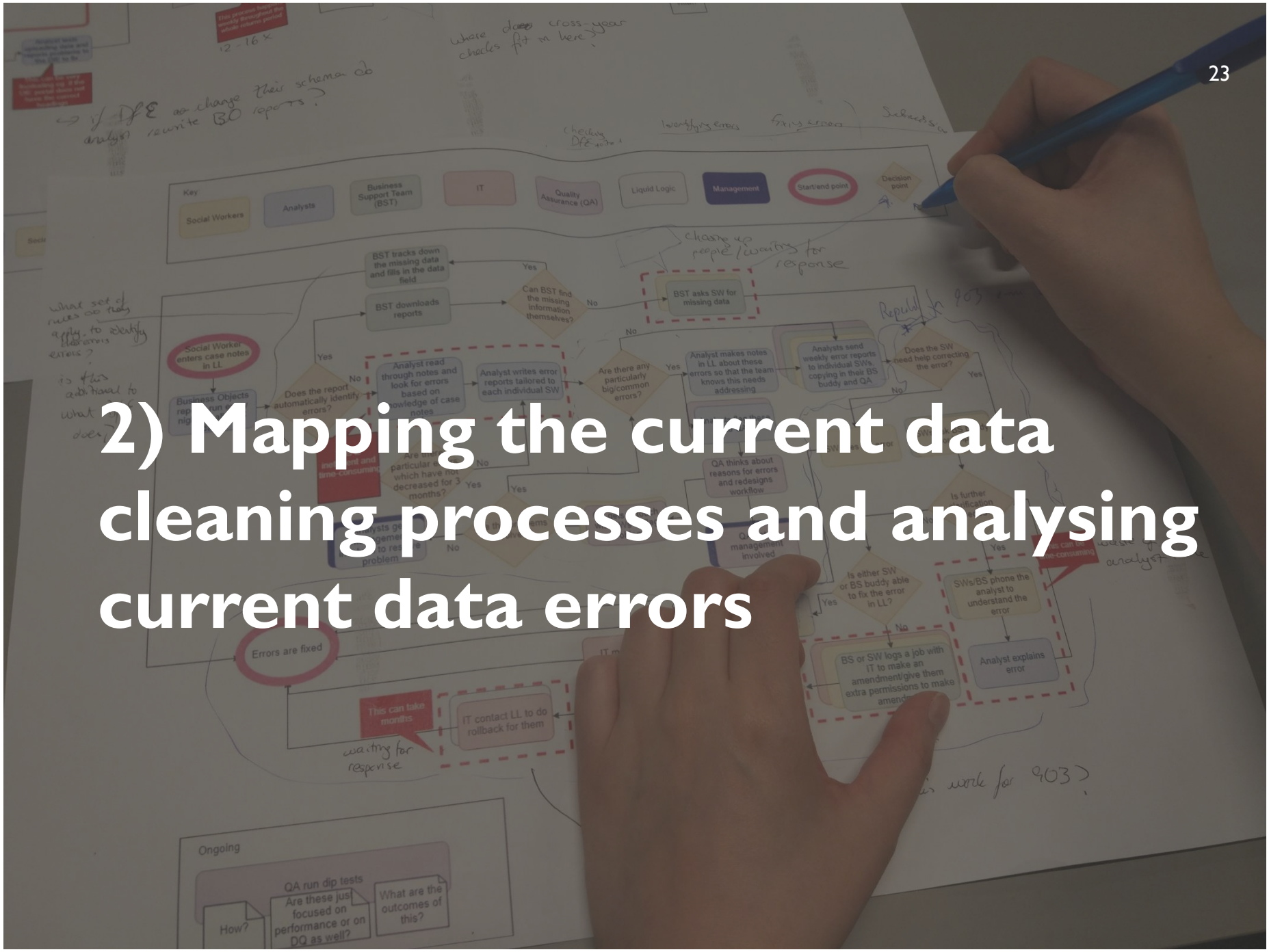
I need: good quality data
So I can: rely on the analysis when making strategic and operational decisions

I need: information about the child's lived experience of being in care
So I can: know if we're doing the best that we can for each child

I need: more insightful analysis and better contextual information with the data
So I can: use the data to make well-informed strategic and operational decisions

I need: outcomes data on care leavers
So I can: know if our services work in the long-term

I need: better comparative data
So I can: benchmark myself against other councils and learn best practice



2) Mapping the current data cleaning processes and analysing current data errors

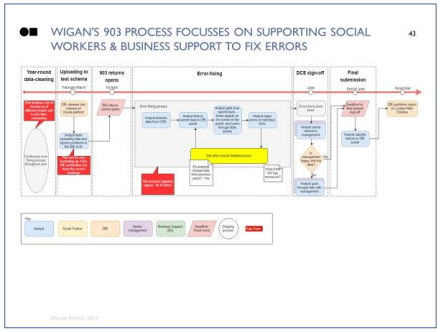
THE IMPORTANCE OF UNDERSTANDING THE 'AS IS'…

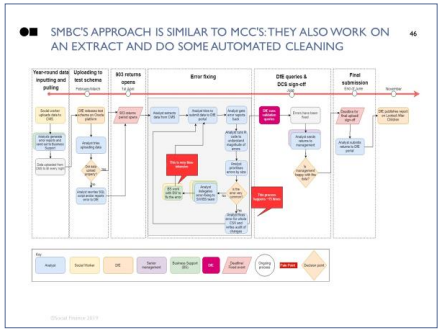
In order to determine how to improve data quality on Looked After Children, we needed to understand current processes.

We worked with analysts to map the current data cleaning processes to identify 'best practice' that could be shared.

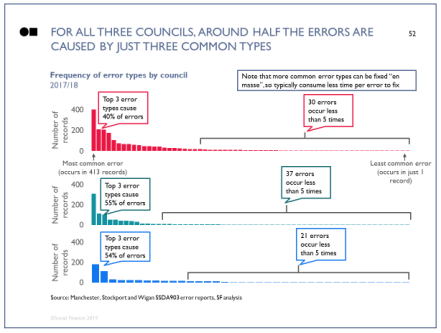
We also analysed the error logs on historic returns covering 2000+ Looked After Children. This helped us understand the scope of the problem and opportunities to reduce the number of errors.

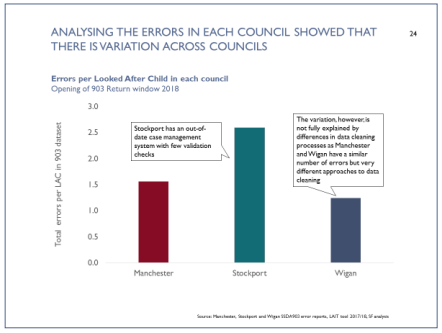
How is data cleaned currently?





What type of errors occur?





THROUGH MAPPING THE 'AS IS' PROCESS, WE FOUND SOME CONSISTENCIES BETWEEN THE THREE COUNCILS…

Statutory return timeline

DfE open a test 903 upload portal *February/March*

DfE portal opens *Start of April*

Data finalised *End of June*

DfE publishes their report, *Children looked after in England (including adoption)* *November*

DfE test portal

- Near the start of the year the DfE open a test version of their 903 return upload portal for councils to check
- If the DfE have changed the data required, all the councils re-write their extraction code at this point

Statutory return window

- The DfE portal is open from April until June. This is the only time of the year when analysts can test their data against the DfE's validation rules to see what errors they have
- Analysts in all three councils go through an intensive, stressful process during these months to clean all of the errors identified by the DfE validation rules
- They all follow a similar process of 1) extracting data from their case management system, 2) submitting it to the portal to test what errors they have, 3) cleaning errors (this process varies by council), 4) iterating steps 2 and 3 until there are no errors left, then 5) signing off the data with the Director of Children's Services

DfE reports

- These reports contain high-level aggregate data summarising all of the 903 returns from each council in England
- Councils report that beyond these reports, they don't know what the data is used for
- Councils do not often use this data for key decision-making because it is aggregate level and 6-18 months out of date
- Councils and other organisations can apply to get individual level data, but this can take 1-2 years

ALL THREE COUNCILS GO THROUGH AN INTENSIVE, STRESSFUL PERIOD OF CLEANING FOR THE THREE MONTHS THAT THE DFE PORTAL IS OPEN

KEY LEARNINGS FROM MAPPING THE 'AS IS'

Council	Year-round error cleaning?	Who cleans data?	Where is data cleaned?
Wigan Council	**Yes** – throughout the year analysts check for certain well-known errors	**Social workers** – Analysts send social workers detailed emails explaining each error and options to fix it. Social workers then fix it with business support	**Case management system** – all errors are fixed directly in the case management system
Manchester City Council Stockport Metropolitan Borough Council	**No** – Manchester and Stockport have some summaries of the errors in the system, but don't do a significant amount of cleaning year-round	**Analysts** – analysts largely lead the error cleaning process, often finding the correct information and fixing it	**Data extracts** – analysts clean the data in an extract to save time. They tell business support about the errors so that they can fix them in the case management system

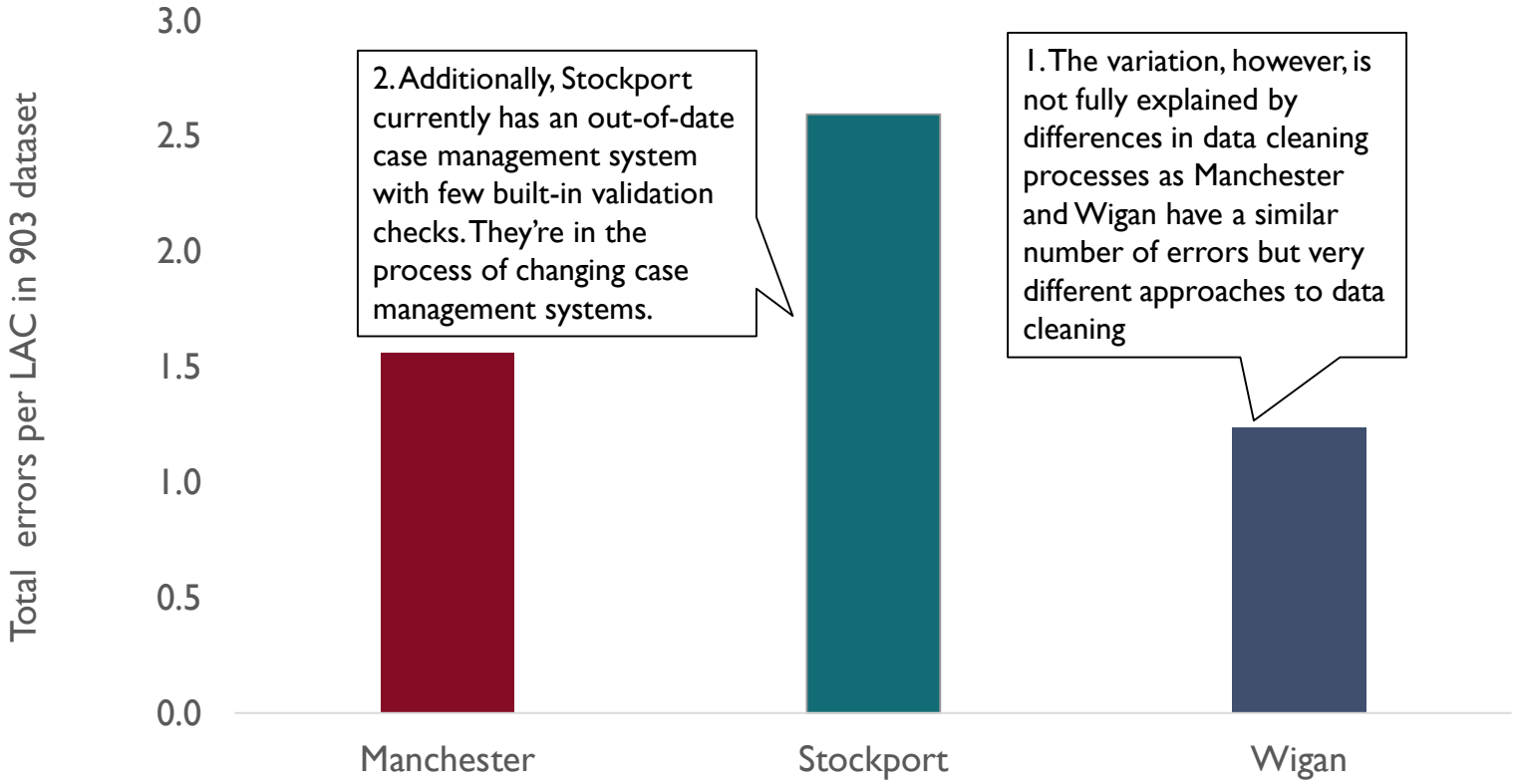
Although Wigan's process is more rigorous, it is also more time & resource intensive

WE CONCLUDED THAT THERE WEREN'T CLEAR ACTIONS THAT ALL AUTHORITIES COULD TAKE TO IMPROVE THEIR PROCESSES

ANALYSING THE ERRORS IN EACH COUNCIL SHOWED THAT THERE IS VARIATION BETWEEN THE COUNCILS

Number of errors per Looked After Child in each council

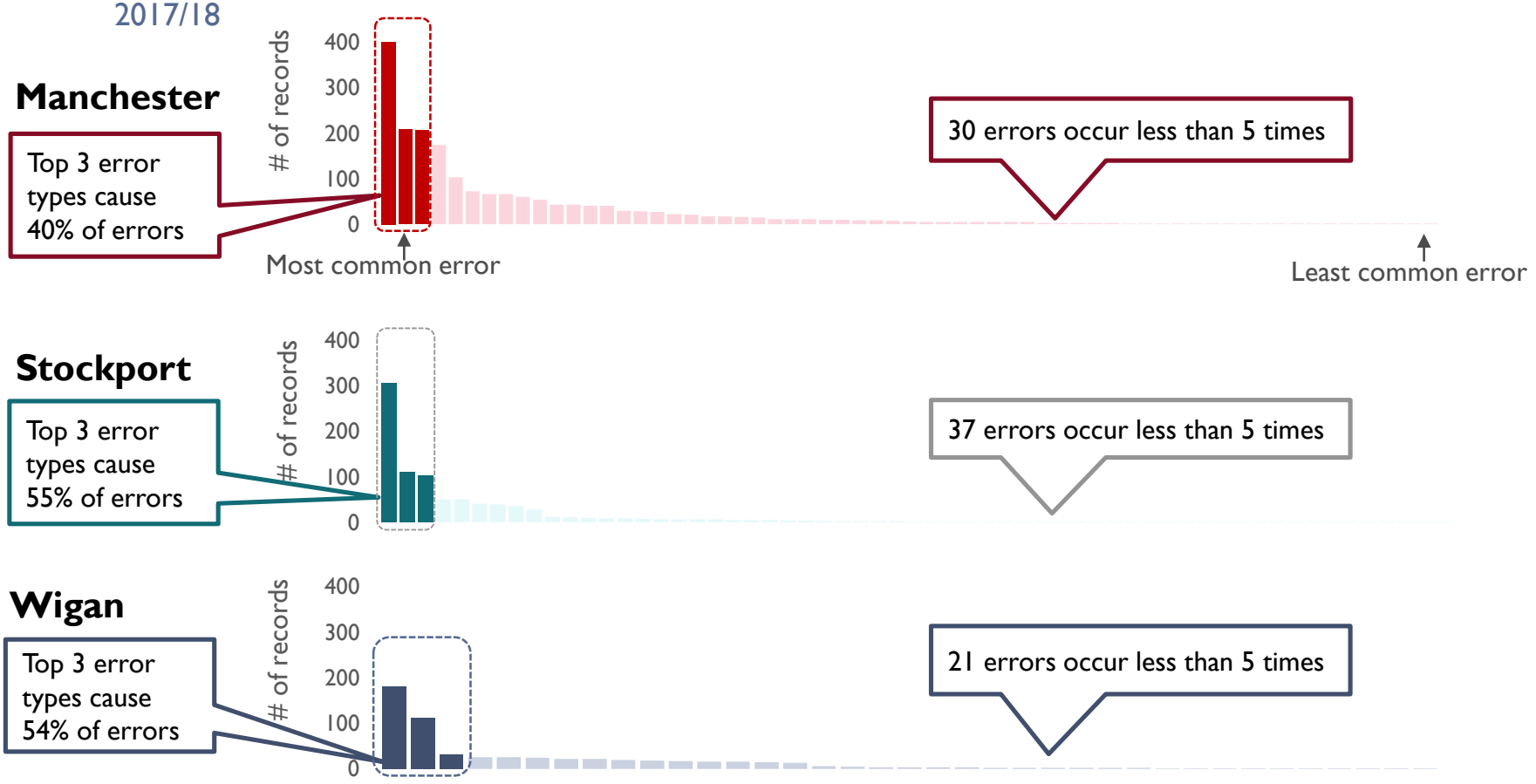
Opening of 903 Return window 2018



Source: Manchester, Stockport and Wigan SSDA903 error reports, LAIT tool 2017/18, SF analysis

FOR ALL THREE COUNCILS, MOST OF THE ERRORS ARE CAUSED BY ONLY A FEW ERROR TYPES

Frequency of error types in each council
2017/18

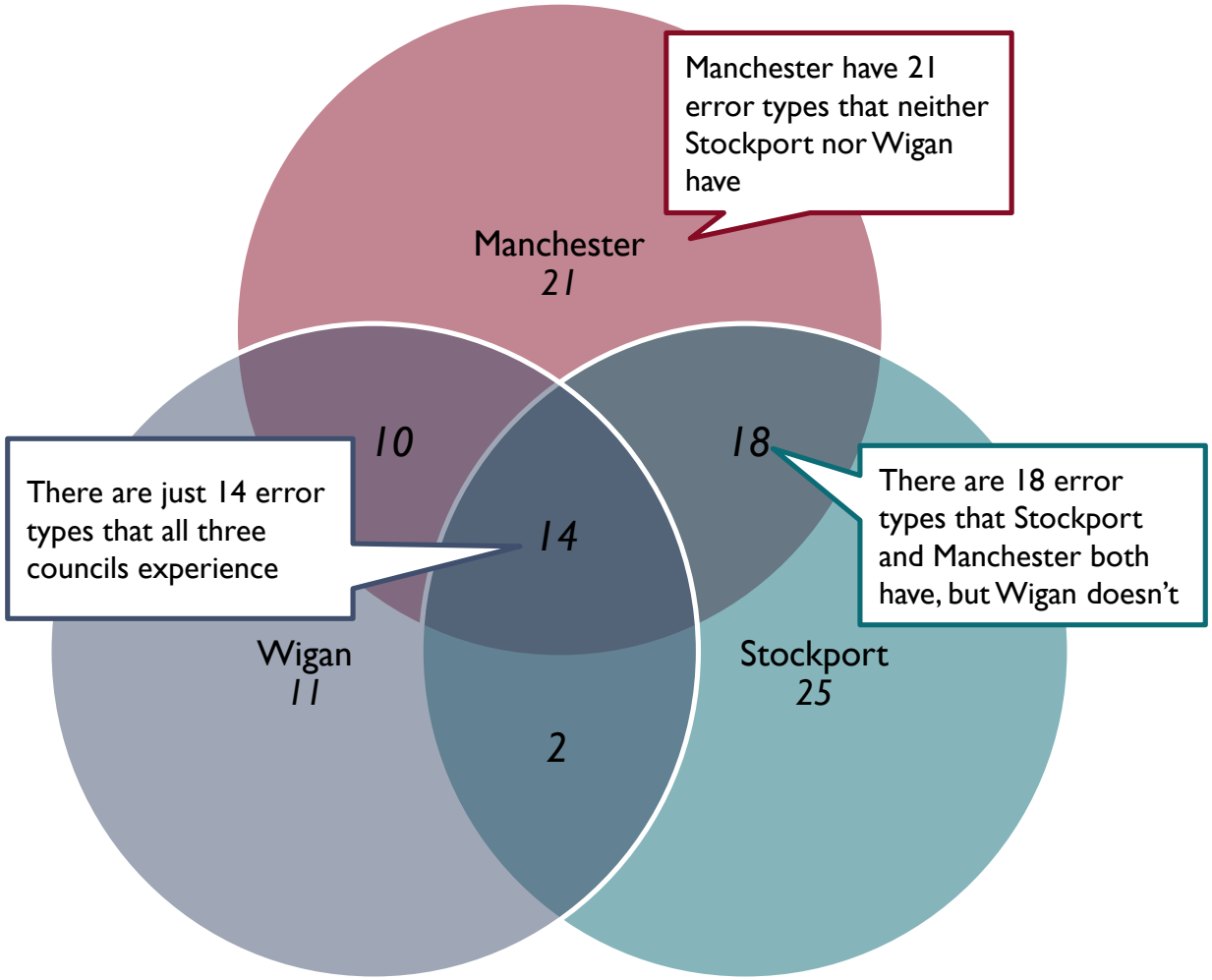


ELIMINATING THESE COMMON ERROR TYPES WOULD SIGNIFICANTLY REDUCE THE TOTAL NUMBER OF ERRORS

Source: Manchester, Stockport and Wigan SSDA903 error reports, SF analysis

ONLY 14 ERROR TYPES OCCUR IN ALL COUNCILS – THE REST OCCUR IN ONLY ONE OR TWO

Overlap of error types in each council
2017/18



Source: Manchester, Stockport and Wigan SSDA903 error reports, SF analysis

ADDRESSING THE TOP 5 ERROR GROUPS WOULD REMOVE THE MAJORITY OF THE ERRORS

By grouping different types of errors together, the most common are:

1. **Inconsistent data**: Data is inconsistent with the 903 Return from the previous year. E.g. this might be a child who was recorded as being in care the previous year, but does not appear on the list of those who are in care or who have left care in the current year

2. **Ofsted Unique Reference Number (URN) for placements**: Placements for children in care all have a URN from Ofsted which is either missing or incorrect (Wigan only)

3. **Multiple reviews**: Multiple reviews are recorded for one child as having taken place on the same day (Stockport only)

4. **Placement postcode**: The postcode of the placement is missing

5. **Placement provider code**: The code for the placement provider is invalid

TOGETHER, THESE ERROR GROUPS MAKE UP 60% OF THE TOTAL ERRORS IN MANCHESTER, 78% OF THE TOTAL ERRORS IN STOCKPORT, AND 66% OF THE TOTAL ERRORS IN WIGAN

Source: Manchester, Stockport and Wigan SSDA903 error reports, Stockport and Manchester analyst estimates of error fixing difficult, SF analysis

KEY LEARNINGS FROM MAPPING THE 'AS IS' DATA CLEANING PROCESS AND ANALYSING CURRENT DATA ERRORS

Data cleaning process – No best practice data cleaning processes emerged from the exercise. No local authority has a 903 data cleaning process that eliminates substantially more errors than the others. However, common process issues emerged around: (1) the inability to identify errors quickly, which makes it difficult to clean errors year round; (2) and the inability to correct errors in bulk.

Error analysis – The types of errors differ across authorities, suggesting that many errors could be eliminated. The majority of errors are made when the data is entered, due to time-pressures and unintuitive systems. The ability to quickly make people aware that an error has been made would drastically improve data quality.

Tool sharing – Wigan offered to share their code for extracting data from the case management system in the format required for the 903 return with the other two councils. This is a key step in the effort to increase collaboration, and will save Stockport and Manchester councils time rewriting these codes when they move over to Liquidlogic.

3) Identifying potential solutions

WE GROUPED THE USER NEEDS AROUND FIVE COMMON THEMES

Theme	User Needs	Users
Data Entry	**As a social worker:** • I need a case management system that is intuitive to use so I can enter data easily and correctly **As an analyst:** • I need data to be inputted correctly so I can have more time free to do analysis	 Social workers Analysts
Data Cleaning	**As an analyst:** • I need the ability to identify and fix multiple errors at the same time, so I can stop manually going through errors one-by-one • I need to spend less time chasing social workers to correct data, so I can spend more time doing analysis • I need the ability to test for and fix errors throughout the year, so I can stop errors from building up **As leadership:** • I need good quality data, so I can rely on the analysis and use it to make important decisions • I need better comparative data, so I can benchmark myself against other councils and learn best practice	 Leadership Analysts
Data Timeliness	**As a social worker:** • I need easy and quick access to relevant case information so I can make the right decisions for the child **As leadership:** • I need access to up-to-date data, so I can base decisions on what's happening currently	 Leadership Social workers
Outcomes Data	**As leadership:** • I need information about the child's lived experience, so I can know if we're doing the best that we can for each child • I need outcomes data on care leavers, so I can know if our services work in the long-term	 Leadership
Insight	**As leadership:** • I need more insightful analysis and better contextual information around the data, so I can use the data to make well-informed strategic decisions • I need good quality data, so I can rely on the analysis and use it to make important decisions **As an analyst:** • I need the ability to share and link data across councils, so I can do more effective analysis • I need: good quality data (e.g. an accurate representation of the child's experience) so I can be confident that analysis is accurate • I need to know what analysis leadership need so I can plan ahead to get leadership the right analysis	 Leadership Analysts

FOR EACH THEME, WE BRAINSTORMED NEXT STEPS

Theme	Next Step
Data Entry	A: Run a discovery project to understand the social worker data entry process and needs, and to identify how to improve this process B: Run a discovery project to understand how we can make data valuable to social workers so that they get the benefits of data entry and good quality data
Data Cleaning	C: Run an alpha[1] project to develop an 'error benchmarking tool' so councils can see how their errors compare to others year-round D: Run an alpha project to develop an 'error identification tool' to identify errors year-round and replicate DfE validation rules with optional additional error checking to improve data quality
Data Timeliness	E: Run an alpha project to produce a simplified common data model. This would contain a simpler set of common data than the 903 dataset, using just the key information needed for analysis that can be effectively produced and kept clean year-round
Outcomes Data	F: Run an alpha project to produce an outcomes-focused common data model. This would build on the 903 dataset but include additional outcomes and finance data to more effectively inform decisions
Insight	G: Run a discovery project with leadership focused on better defining what analysis they need to inform decisions

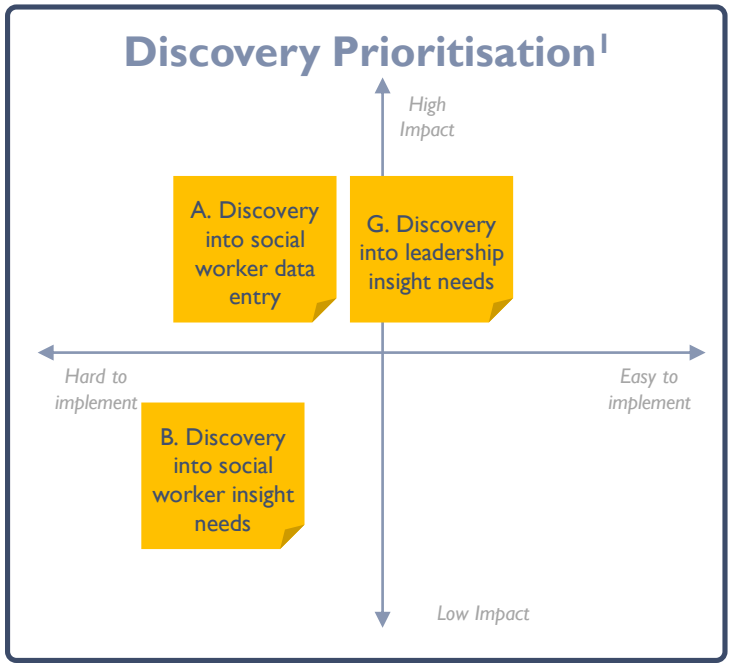
Alongside our chosen next step(s), we will also:

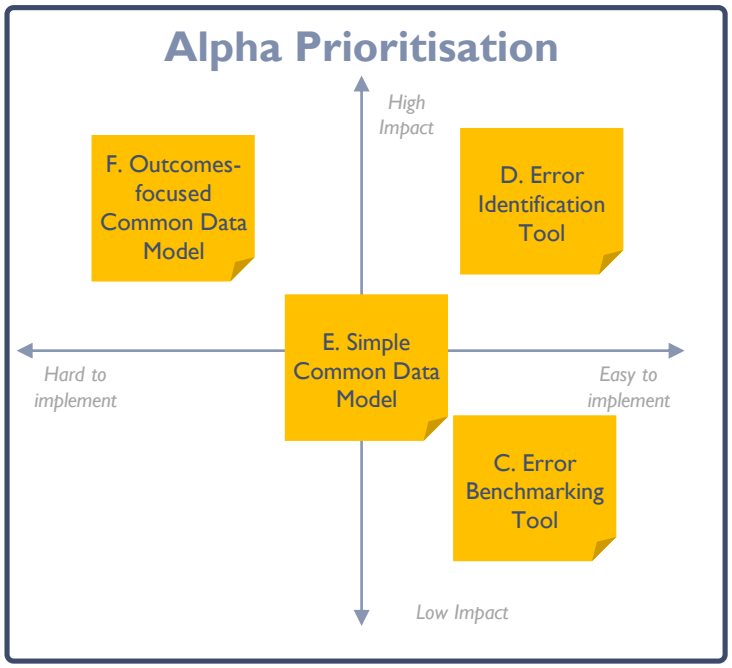
1) **Provide advice to the DfE** on the 903 process with suggestions that they e.g. keep their portal open year-round, publish error codes, simplify data collection; and
2) **Engage with case management system providers** to discuss system improvements (inc. LiquidLogic & Mosaic)

1. The alpha phase is the development phase that comes after discovery. This phase includes building and testing prototypes and demonstrating that the service you want to build is technically possible

WE THEN PRIORITISED AND IDENTIFIED WHAT WOULD BE MOST FEASIBLE AND WHAT WOULD HAVE THE BIGGEST IMPACT

We ran a prioritisation exercise at our final workshop, which was attended by analysts and managers from the councils. We also discussed it with middle and senior management, including the Chief Information Officer at Greater Manchester Combined Authority.



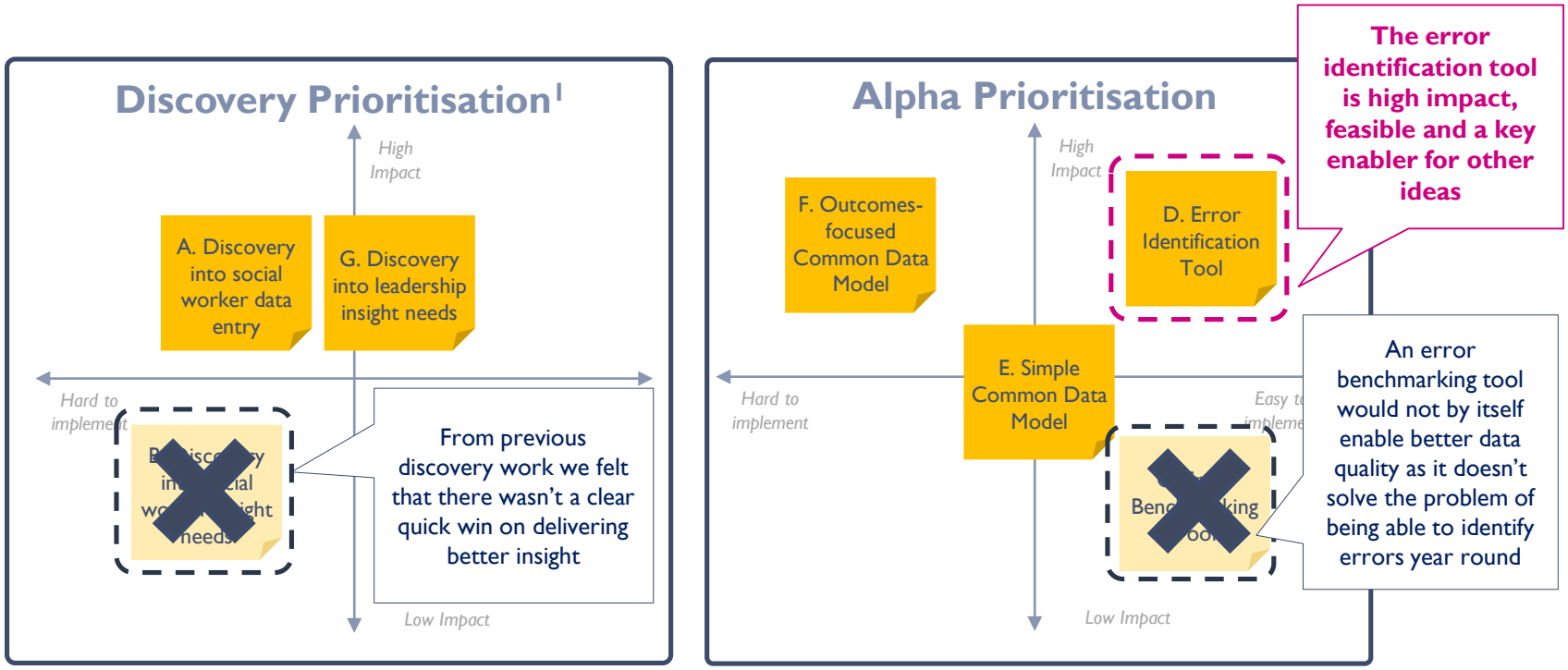


WE AGREED THAT THERE WAS VALUE IN MOST OF THESE PROPOSITIONS AND WE SHOULD CONSIDER TAKING SEVERAL OF THEM FORWARD, BUT THAT WE SHOULD IDENTIFY THE MOST EFFECTIVE IMMEDIATE NEXT STEP

1. Discovery prioritisation was based on how impactful it would be to answer the discovery question and how feasible making changes in that space would be (e.g. discovery into social work data entry could result in a new case management system)

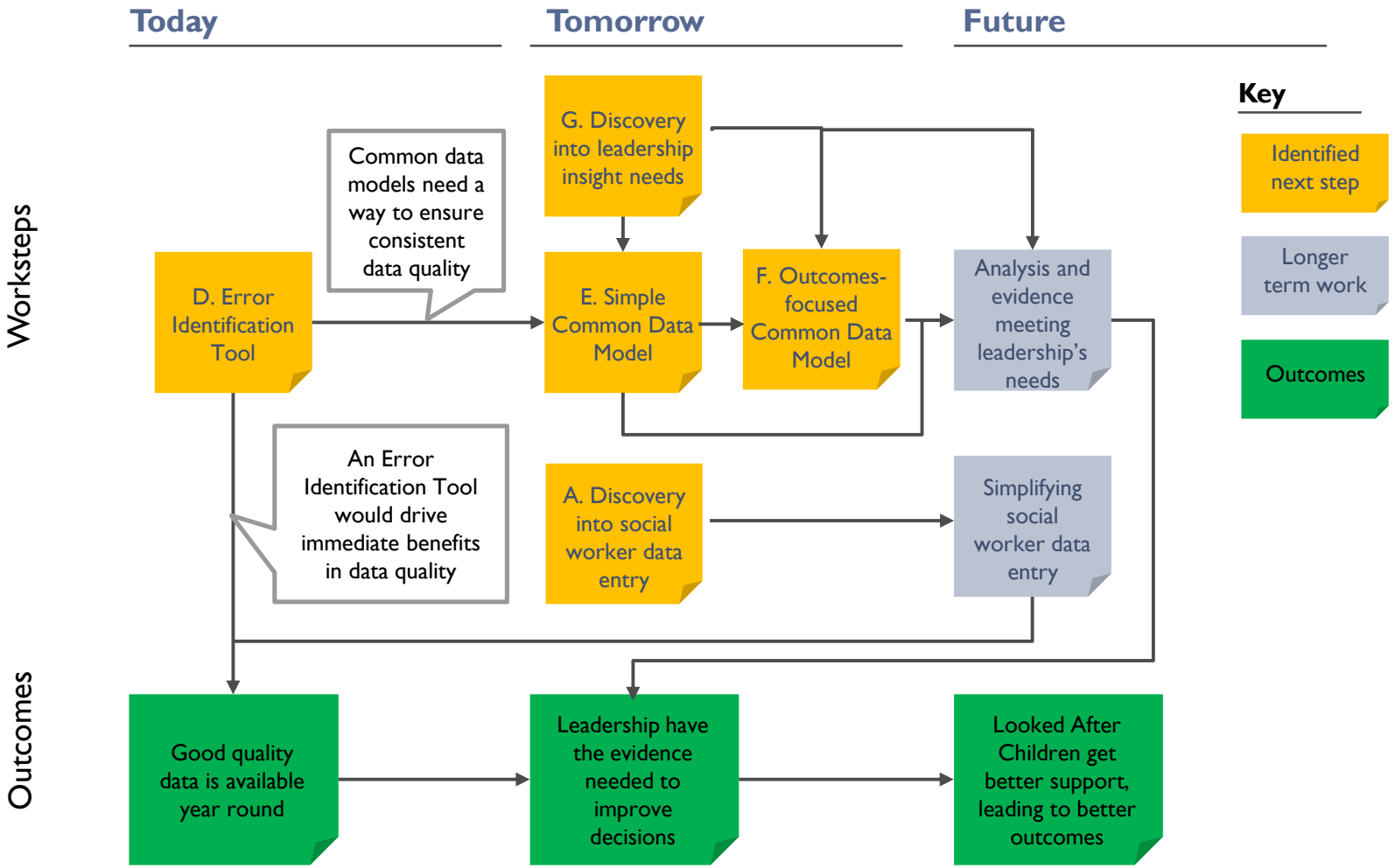
WE DECIDED THAT FIXING DATA QUALITY IS A KEY FIRST STEP

The error identification tool would drive real, immediate value, and enable more value to be drawn from data analysis.



1. Discovery prioritisation was based on how impactful it would be to answer the discovery question and how feasible making changes in that space would be (e.g. discovery into social work data entry could result in a new case management system)

THE ERROR IDENTIFICATION TOOL WOULD DRIVE BETTER DATA QUALITY IN THE SHORT TERM AND ENABLE FUTURE WORK TO PROVIDE LEADERSHIP WITH BETTER EVIDENCE



IN MORE DETAIL: THIS WOULD ENABLE COUNCILS TO PRODUCE GOOD QUALITY DATA YEAR-ROUND

Overview: Develop a tool that can (1) identify errors in Looked After Children data throughout the year and (2) help improve data entry and cleaning

Recommendation

- Develop a tool which analysts can use to identify what errors there are in data on Looked After Children:
  - A tool could take as input standard data extracts from the case management system which every council has already for the 903 return. It would therefore be case management system agnostic
  - The tool would apply the DfE data validation rules to highlight which data has errors. Councils could build on it and use it for other statutory returns outside of the 903 return
  - It could also apply additional validation rules to pick up on other errors, not identified by the DfE
- The tool could be used directly to improve data entry and cleaning, for example through automated cleaning or automated error notifications to social workers (either on a regular basis, or even in real-time)
- This could potentially lead to tools to improve data entry: if incorrect information can be identified live, then auto-population or auto-suggestions could be done live

User Needs

As an analyst:

- I need the ability to identify and fix multiple errors at the same time, so I can stop manually going through errors one-by-one
- I need to spend less time chasing social workers to correct data, so I can spend more time doing analysis
- I need the ability to test for and fix errors throughout the year, so I can stop errors from building up

As leadership:

- I need good quality data, so I can rely on the analysis and use it to make important decisions
- I need better comparative data, so I can benchmark myself against other councils and learn best practice

Benefits

- Enable analysts to test for and fix errors throughout the year so they don't build up
- Save analysts and social workers time entering and cleaning data
- Avoid councils each having to independently write error checking code
- Improve data quality throughout the year, not just during the statutory return window, so leadership can better rely on the analysis when they make strategic decisions.This would make data analysis tools such as the Children's Services Analysis Tool[1] more useful
- Open other opportunities to improve data quality such as: error-checking for other statutory returns, better common understanding of data quality issues, common data validation approaches etc.

1. The Children's Service Analysis Tool (ChAT) is a tool produced by Ofsted, Waltham Forest Council and Hackney Council which produces a visual report covering all areas of Children's Social Care. More details can be found on slides 88-91 of our full user research report

IN MORE DETAIL: ALPHA SPECIFICATION: ERROR IDENTIFICATION TOOL PROJECT REQUIREMENTS

TEAM REQUIREMENTS

Team skills: user research, project management, data science, business analysis, SQL[1] database engineering, experience using and understanding of Looked After Children data

DEPENDENCIES

- Access to 903 extract data from each council
- Active involvement of analyst, business support and quality assurance teams
- Access to social workers for additional user research
- Access to DfE code (optional – rules are published)

OUTCOMES AND KPIS[2]

- Analysts are able to test what errors there are in Looked After Child data all year round
- Councils are able to use shared insights to improve approaches to data quality
- There is a reduction in data errors over the course of the project and the following months – the tool can be used to assess the performance of this

PROCESS AND DELIVERABLES

2-week design "sprint"

- Design and test user prototype options to meet user needs

Error identification tool MVP

- Develop error identification tool MVP with councils

Develop "community of practice"

- Create a forum for analysts, business support and quality assurance to develop and share approaches to data quality

Error analysis

- Test overall data quality to identify needs for further error checking

1. SQL stands for Structured Query Language – it's a programing language commonly used by councils and other orgnaisations to work with data
2. KPIs = Key Performance Indicators

THE MAJOR BENEFIT OF AN ERROR IDENTIFICATION TOOL WOULD BE BETTER EVIDENCE FOR LEADERSHIP, BUT THERE ARE ALSO SHORT TERM TIME SAVINGS[1]

Time savings for social workers and analysts on year round data entry and cleaning[1]

Identifying errors / missing information quickly / in real time could make fixes and completion easier. It will help social workers know immediately when data has been inputted wrong.

Our analysis suggests that time savings on year-round error cleaning alone could give a 130 day saving/year for social workers, analysts and support for an average council.

Per council benefits:
Time saving: **~130 days / year**
Equivalent to: **£23,000[2]**

Applying conservative confidence factors suggests benefits of[1]: ***£9,500***

Time savings for analysts on data cleaning for statutory returns[1]

Helping analysts identify errors faster and automating fixing common errors (e.g. placement provider code or post codes) will result in major efficiencies for analysts.

Our analysis suggests that 20 days of time could be saved for data cleaning on the 903 return alone.

Applying the tool just two of the over 130 other statutory returns that councils submit to central government could save a further170 days.

Per council benefits:
Time saving: **~190 days / year**
Equivalent to: **£34,000[2]**

Applying conservative confidence factors suggests benefits of [1]: ***£13,000***

Supporting better decisions for leadership

Having high quality comparative data year-round would help leadership use evidence to improve decisions, support and outcomes. In particular, tools such as the Children's Services Analysis Tool would be more reliable and therefore more useful.

We estimate that poor outcomes across education, employment, health, homelessness and crime mean that former Looked After Children cost government at least £1BN more than their non-Looked After peers.

Benefits (unquantified):
Leadership can use evidence to inform strategic decisions more, because they trust in the data quality.

Major benefit

1. See supporting benefits case for full details on all benefits, costs and application of conservative confidence factors to account for uncertainty
2. Based on average £35,000 / year salary with a 21% pension overhead and a 233 working day year (GDS Benefits Handbook)

THE COSTS OF THIS ARE UNCERTAIN, SO WE'VE PUT TOGETHER A BENEFITS CASE BASED ON CONSERVATIVE ASSUMPTIONS[1]

	One-off investment	Ongoing costs
Fixed costs	**Development work** (one off) • ***Discovery project – completed*** *(12 week discovery to understand user needs):* ***£110k*** • **Alpha project – next phase** (10 weeks alpha to build and user test a basic prototype): **~£100k** • **Beta project – further phase** (12 week beta project to further develop and test a tool**): ~£150k**	**Maintenance** (per year) A tool would likely require some ongoing maintenance and potentially further development work: **£100k / year**
Per council costs	**Set-up costs** (one-off per council) Costs to get new councils joining the project / using the tool: • **Onboarding** (setting up a tool in a new council would be quick and simple, requiring no integration): **£2k / council** • **Process change** (councils would work to use tool outputs to change processes): **£3.5k / council**	**Ongoing support and hosting** (per year per council) Each council using a tool would need some support each year to maximise value from the tool: **£1k / year /council** The tool may require hosting: **£1k / year / council**

1. See supporting benefits case for full details on all benefits and costs

THIS CONSERVATIVELY ESTIMATES THAT TIME SAVINGS ALONE COULD PAY BACK INVESTMENT OVER A FEW YEARS[1]

Costs and benefits under different scale scenarios[2]

	1 council	10 councils (Greater Manchester)	30 councils (North West and partners)	152 councils (All councils in England)
Investment	c. £367k	c. £417k	c. £527k	c. £1,198k
Net Annual Benefits	Negative – not viable investment	c. £126k	c. £533k	c. £3,000k
Payback period	Never – not viable investment	3.3 years	1 year	5 months
ROI	Negative – not viable investment	30%	101%	250%
10-year NPV	Negative – not viable investment	£606k	£3.8m	£22.9m
	This work would not be feasible without collaboration	**Downside** – fail to scale beyond Greater Manchester	**Base case** – scale across the North West and other partners	**The potential** – scale nationally

However, the greater benefit – not quantified here – is supporting leadership to use evidence to improve strategic decisions

1. See supporting benefits case for full details on all benefits and cost
2. Conservative confidence factors have been applied to benefits here

WE CAREFULLY ASSESSED WHETHER WE SHOULD CONTINUE TO ALPHA WITH AN "ALPHA GATEWAY" STYLE PROCESS

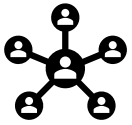
Category	Assessment	Discussion
Immediate value-add		There is immediate value-add in terms of time savings, however, these are relatively modest, equivalent to less than 1 FTE per council.
Long-term benefits		Strong long-term benefits from meeting leadership's need for good quality data year-round, meaning they can use solid evidence to improve services.
Scalability		Our conversations and experience show that data quality is a problem for all councils, and statutory return processes are similar across councils. This means a common solution could be easily shared and scaled across councils.
Strategic benefits		Local authorities want to collaborate to build tools and services – a common way of cleaning data would enable common tools such as common data models, shared analytics tools, etc. to be built and used across councils.
Fiscal case		The only quantifiable fiscal benefits are modest non-cashable time-savings. The larger benefits from better decisions are not readily quantifiable.
Feasibility		It is feasible to meet this need in a timely way. The DfE publishes error definitions which could be used to produce a simple tool.
Risks		Many major risks are well-mitigated: there is broad enthusiasm across councils and we have a flexible plan that can accommodate different levels of stakeholder involvement.
Uncertainties		There is some uncertainty around what pathways from identifying errors to improving data quality will prove most effective.

WE CONCLUDED THAT ALTHOUGH THERE IS UNCERTAINTY AROUND THE IMMEDIATE VALUE-ADD AND THE FISCAL CASE, THE HIGH FEASIBILITY, SCALABILITY AND LONG-TERM BENEFITS MAKE THIS AN ATTRACTIVE OPTION TO TAKE FORWARD TO ALPHA

THE ERROR IDENTIFICATION TOOL WOULD BENEFIT EVERY COUNCIL, INDEPENDENT OF SYSTEMS

Data quality is an issue for every council

- We've spoken to 35 councils across the country about their children's services data. Each have flagged data quality as a major pain point
- Informal networks, such as analyst chat groups, show that data quality is a major topic of conversation and concern
- Previous analysis using the national 903 dataset shows data quality issues



An Error Identification Tool could work for every council

- Every council must submit the 903 return
- Each goes through the process of extracting and cleaning the data
- An Error Identification Tool could slot into existing workflows and add value immediately

An Error Identification Tool could also help on other statutory returns

- Councils must submit over 130 different statutory datasets to central government each year
- For example, councils must submit 37 returns to MHCLG, 25 to the DfE and 11 to DEFRA
- Each of these require data cleaning so the Error Identification Tool could have significant benefits beyond Looked After Children data

WE'RE NOW LOOKING TO SHARE OUR FINDINGS AND BRING IN MORE PARTNERS TO COLLABORATE

CORE PARTNERS

- Manchester City Council
- GMCA Greater Manchester Combined Authority
- Wigan Council
- Ministry of Housing, Communities & Local Government
- Stockport Metropolitan Borough Council

AIM TO BRING IN OTHER GREATER MANCHESTER COUNCILS

- Trafford Council
- Oldham Council
- Bury Council
- Salford City Council
- Rochdale Borough Council
- Bolton Council
- Tameside Metropolitan Borough

ENGAGE WITH OTHER LOCAL AUTHORITIES TO TEST SCALABILITY

- Cheshire West and Chester
- Sheffield City Council
- North Yorkshire County Council
- Leeds City Council
- Camden
- Essex County Council
- Islington
- Haringey Council

Department for Education

We would engage actively with the Department of Education in any alpha to ensure it aligns to their workflows and vision for how the SSDA903 returns should be processed and cleaned

Get in touch with us: ed.faherty@greatermanchester-ca.gov.uk

THE PROJECT HAS ENABLED COLLABORATION BETWEEN COUNCILS TO WORK TOGETHER ON COMMON CHALLENGES

"We've benefitted from having time to collaborate with our regional colleagues. It has also given us the opportunity to challenge ourselves locally and make some changes and improvements. We can see how we apply these across other statutory processes."

Liz Ireland – Wigan Joint Intelligence Unit Manager

"The Digital Declaration[1] has given us the opportunity to really get to the bottom of pressing issues affecting our services and fix the plumbing by working with partners across Greater Manchester. The team at MHCLG have been fantastic and supported us from the start in producing some really valuable work."

Ed Faherty – GMCA Project Manager

1. The Digital Declaration details MHCLG's ambition for local public services in the internet age and their commitments to realizing it. Read more here: https://localdigital.gov.uk/declaration/