Local Government Association

Department for Digital, Culture Media & Sport

Research

# Helping to tackle loneliness through open data on local services

## Research Report

July 2020

Participating Local Authorities


We particularly record our thanks to Digital Gaps, Porism Ltd and iStandUK – three partner organisations that led the work, provided technical and engagement oversight and wrote this report.

This report is available for download in pdf form here: http://e-sd.org/IGODN/

To view more research from the Local Government Association Research and Information team please visit: https://www.local.gov.uk/our-support/research

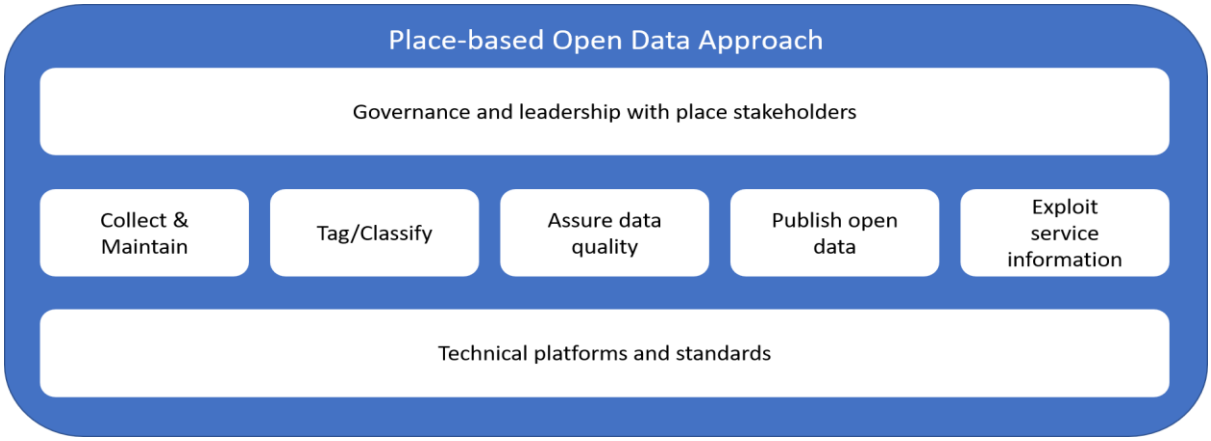
# Contents

# Synopsis

Our objective is to explore ways of making it easier to find information about the most appropriate local services delivered by local authorities, community groups and other providers by the people we aim to serve.

This report is long and detailed as we covered substantial research and trials into many areas. The following diagram summarises the areas of work for any implementation, but we recommend the following as key elements for each audience to consider:

- *Strategic director*
  The Executive Summary on page 7 should suffice bearing close attention to the maturity model which sets out the main areas for a council to focus on for implementation.
- *Project manager*
  The whole report should be of interest to the project manager, but particular attention should be given to the Appendix A on page 43 which gives an implementation plan and more.
- *Technical officer*
  Section 5 will be interest to a technical person, but technical details are online here: https://openreferraluk.org/




Government recognises the difficulty people and organisations have accessing accurate information about activities and services available locally that might assist their special needs and circumstances. The availability of up to date, easily accessible, data about local services published openly and to a consistent format and data standard has the potential to change things. Directories of services (DoS), discovery apps, websites and even printed service catalogues will emerge if a trustworthy source of reliable, local services information can be made available online routinely and openly.

In 2019/20, the Local Government Association (LGA), participating local authorities and the Department of Digital, Culture, Media and Sport (DCMS) initiated a project to trial easier means of identifying and promoting local services through the publishing of information about local and hyper local services online. For the purposes of this exercise, special attention was given to develop solutions that have potential to help vulnerable and lonely people. The strategies adopted and the lessons learned, however, can equally be applied to any local services for any category of consumer.

The work set out to consider all aspects necessary (both technical and procedural) to trial a solution. The project drew upon the expertise of pilot local authorities, representatives of the people they are serving, experts in data standards, software development, system suppliers, government officials and information managers representing service providers from councils, voluntary sector, health networks and the private sector.

The outcomes from the project was this final report setting out the approach, learning and benefits realised. It includes a record of the achievements and challenges faced. It also provides a sample business case in the hope that other groups will get involved in future years.

A specification and standard for the published data was documented and an exemplar app was developed to show the principles of data discovery. Links to early published data sets is offered for trial use drawn from the work of the participating councils and their suppliers and through wider links to other data sources such as Sports England's Open Active programme. See section 5 for details.

This report explains the approach, challenges and achievements for each of the many facets of the project that were necessary to reach conclusions. These are summarised in the table below

| | |
|---|---|
| Piloting | Creation of several pilot teams in different places throughout the country to identify and prepare data about local services for publishing. This involved drawing upon the help of local authorities and their many partners (private, voluntary and health). |
| Local Governance | Setting up local governance boards to agree strategy, scope of working, local objectives and targets for success monitoring. Building trust between the many and varies participating groups to ensure their worries were addressed and their proprietary contributions were protected. |
| New ways of working | Designing procedures for efficient data collection, tagging, assurance and publishing openly online. |
| Open data standard | Consultation, development and agreement of an open data standard to set out how information is published, ensuring consistency across the country and easy discovery by app developers and data consumers. |
| Technical support tools | Develop a central, free to use, open source technical support suite of tools, guidance and other capabilities to provide a national means of data discovery, validation, links to key registers, connection to similar data from other sectors, aggregation and delivery through an API and other technical channels. |
| APIs | Working with local IT suppliers and custodians of directories of services to extend the councils' technical platforms to support data preparation and open publishing of content to the new data standard. Extensions or creations of APIs – application programmable interfaces – to receive queries from external consumers' systems and returning filtered data for simple presentation of results against set criteria. |
| Supplier engagement | Engagement and support with developers of commercial systems deployed widely within local government. Gaining their participation, ideas and guidance to maximise adoption of the data in the new standard and to trial pilot discovery tools such as apps, websites and service catalogues. |
| Demonstrator app | We commissioned a simple exemplary app to take search criteria and present filtered local services matched to the needs of the individual's special and often complex needs. |
| User stories | We interviewed a sequence of end users and beneficiaries of such a service to determine their challenges, worries, risks and improved life chances. These are documented in a separate "User Stories" document. |

To accompany this report is a separate document which contains a series of "user stories" where we interviewed partners and beneficiaries of this new way of working to assess the potential for the improvements that will be made to people's lives. See here: http://e-sd.org/VdVca/

# Executive Summary

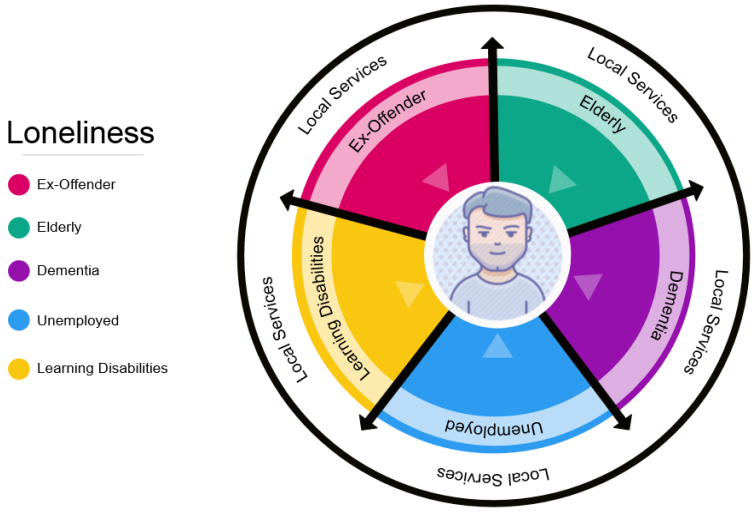
The Government's first strategy for tackling loneliness, A Connected Society[1], published in 2018, committed to long-lasting action to tackle the problem of loneliness. Linked to early deaths and an increased risk of a range of health conditions, it recognised loneliness as one of our most pressing public health issues and set out a vision for this country to be a place where we can all have strong social relationships.

The strategy set out 60 new commitments from nine government departments, focussed on making changes to our organisations, infrastructure and culture. As part of this, the Department for Digital, Culture, Media and Sport (DCMS), in collaboration with the Local Government Association (LGA), digital experts, local authorities, the Ministry of Housing, Communities and Local Government (MHCLG) and the voluntary sector, committed to launch pilots to explore how better management of data can provide a more reliable, more trusted, more accessible and more extensive set of information about local activities, services and support.

From June 2019 to March 2020, three pilot areas, Elmbridge District Council, Hull City Council and Blackburn with Darwen Council, have been investigating efficient ways of collecting information, exploring how a range of stakeholders can play a role in capturing data and helping keep it up to date and testing and refining underpinning data standards and taxonomies. A growing number of other local authorities and NHS stakeholders, such as Bristol, South Gloucestershire, Dorset, North Yorkshire, Enfield, Healthy London Partnership and Lancashire & South Cumbria ICS, have also contributed learning, insight and testing of the project's data standards and taxonomies.

The funding and initial pilot was based upon establishing models for improved accuracy of local service information in support of the loneliness strategy. What quickly became clear was that accurate, reliable and extensive information about local services not only helps deliver better outcomes related to loneliness; it also underpins supporting local public sector and voluntary sector partners to deliver better outcomes across the broadest range of vulnerable groups or risk categories. The diagram below shows the potential inter-relatedness of loneliness and other vulnerable cohorts of people.

[1] Government first strategy on tackling loneliness is here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/750909/6.4882_DCMS_Loneliness_Strategy_web_Update.pdf




This document sets out the findings and emerging recommendations from the project.

## Why are the pilots important?

Within the loneliness strategy, but also more broadly as part of the NHS Long Term Plan, the Government promotes the critical role that initiatives such as social prescribing can play. Social Prescribing is described by NHS England as:

*"*Social prescribing enables all local agencies to refer people to a link worker. Link workers give people time and focus on what matters to the person as identified through shared decision making or personalised care and support planning. They connect people to community groups and agencies for practical and emotional support."

Successful social prescribing, therefore, relies upon being able to identify the broadest range of activities, services and support that are available in the locality for the patient or client. The experience from the pilots and from other projects, like the Open Community Discovery project[2] is that the information that exists about local activities and services can be out of date or inaccurate and tends to be fairly narrow in its coverage (often with more of a focus on statutory services rather than local activities and groups). In practice, this means people who are lonely or vulnerable, or those supporting them, cannot be confident they will find the right support at the right time in the right place.

Ken Barnsley is the Deputy Director of Public Health in Blackburn-with-Darwen council and he sees the initiative as critical:

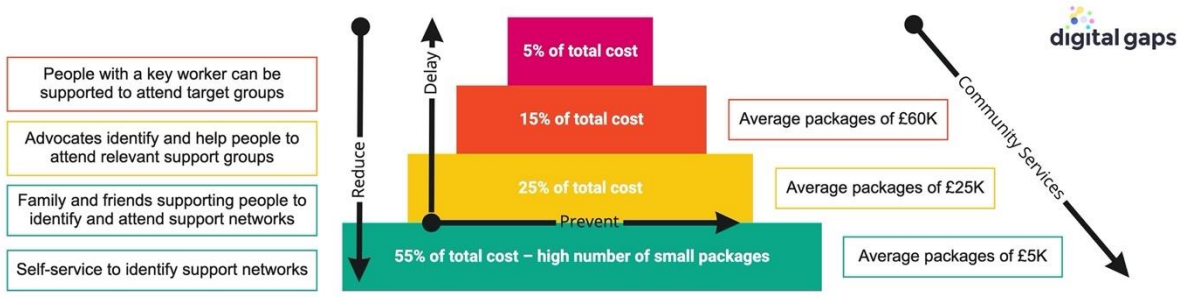
> "A common set of reliable information for the community and voluntary sector, the council and health is really important. It is a fundamental tool to help coordinate the efforts of four key initiatives, namely the integrated neighbourhood teams, Social Prescribing, the Well-Being Service and the Care Network. Together these represent the frontline health and care improvement and prevention support offer for the Borough and their success is reliant upon that reliable, accurate and in-depth information about local services and activities".

Accurate, accessible and reliable information about a wide range of local activities and support services is critical not only for delivering efficient and successful social prescribing services but

[2] OpenCommunity Discovery Report - The case for a community-based services data standard https://opencommunity.org.uk/wp-content/uploads/2019/05/Report-OpenCommunity-Data-standards.pdf

also for enabling other initiatives that seek to prevent people from becoming lonely or escalating into costly health and care packages. These initiatives include self-access, and access by carers, family members or voluntary sector advocates who may be seeking the right support and activities for the people they help.

The diagram below provides a framework that recognises the critical role that reliable service information plays for people at all levels of need; what differs is how they might access the information and how they might access the services.




People with **high levels** of need, who may already feel lonely or vulnerable, will often need a link worker to help identify the support that is available as well as support to grow their confidence and independence. They may also need to be accompanied to attend services and activities in the community.

People with **lower levels** of need can be at risk of escalating loneliness but may be able to self-refer to discover what support may be available and may still have the resilience and motivation to attend.

People with a **moderate level** of need may need help from family and carers in identifying the information and attending the activity or may still have the resilience and capability to sign up and attend themselves.

In 2018 the LGA estimated that the funding gap for Adult Social Services will be £3.5 billion by 2024/2025[3], whilst the Kings Fund estimates that the funding gap in the NHS will be £20 billion by 2023[4]. Prevention or demand avoidance will be a key factor in attempting to reduce the scale of these funding gaps; accurate and reliable directories that cover the broadest range of local activities, support and services will play a critical role in this success.

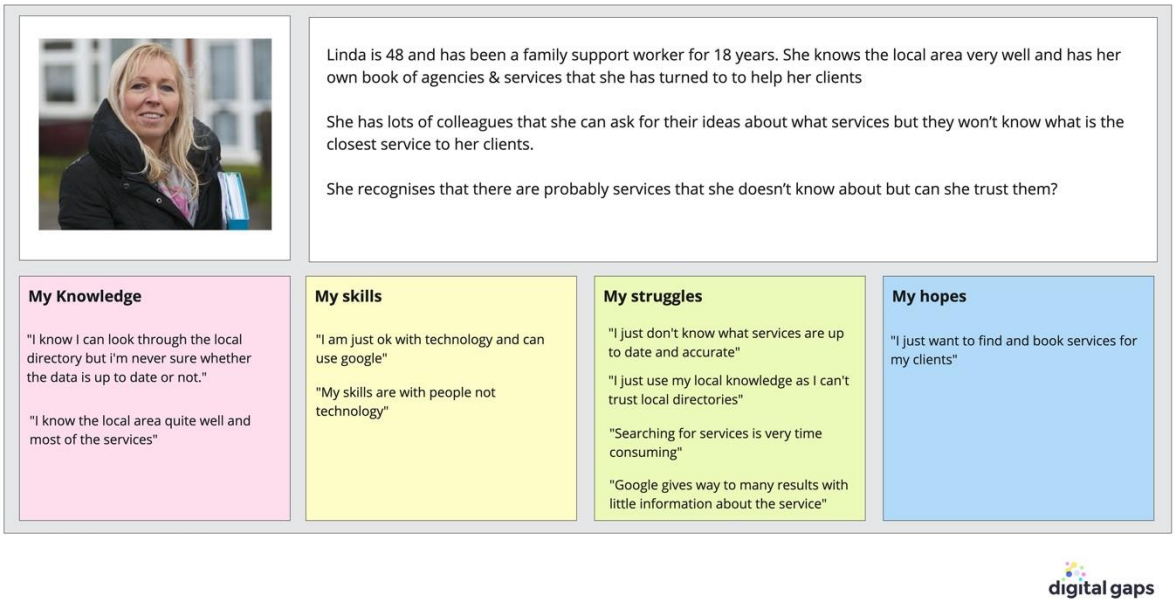
As well as playing a critical role in supporting transformative initiatives such as social prescribing, adopting a more joined-up approach to managing this information between partners is also more efficient; for two principal reasons

- Firstly, it avoids any duplication where multiple agencies are maintaining lists of the same information, which the OpenCommunity Discovery Report estimated might equate to a financial efficiency of £11.69 million per annum nationally; and
- Secondly, it saves research time for social prescribers and other advocates. In Elmbridge and Blackburn the frontline workers estimate they currently spend up to 30 per cent of their time exploring a broad range of other on-line and hard-copy information about potential local groups and activities. A reliable source of all relevant information will free up that time to extend their support to the growing list of vulnerable and at-risk groups.

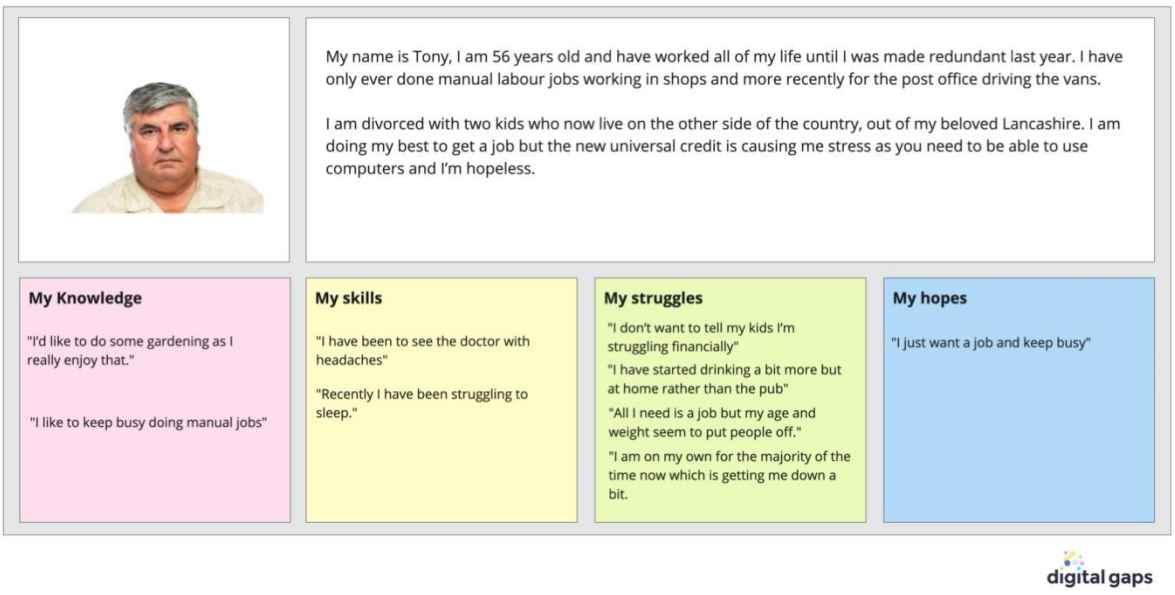
[3] https://futureofadultsocialcare.co.uk/wp-content/uploads/2018/07/The-lives-we-want-to-lead-LGA-Green-Paper-July-2018.pdf
[4] https://www.kingsfund.org.uk/publications/articles/does-nhs-need-more-money/

What is also clear, however, is that frontline workers value and clients will benefit from the improved information. The customer journey below is based on the experience of one of the community link workers in Blackburn with Darwen, which shows the frustrations that both professionals and customers suffer where information is limited, unreliable and sometimes inaccurate.

Worker persona




Client persona




## 1.2 How might Open Data play a part?

The project set out to pilot ways of working differently to improve the accuracy and breadth of information about local services. This remains the primary objective. Previous work by the LGA

in 2016[5] provided a common definition of data that would help the information to be aggregated. Open data, which is data that can be freely used, shared and built-on by anyone, anywhere, for any purpose.[6] Adopting a common standard for Open Data will underpin the opportunity to control the format of the data, if not the accuracy, and so make it easier to consume from multiple sources.

There are four main reasons for the recommendation that information is published as Open Data:

- Firstly, to comply with the 2013 Government strategy[7] that all information should be open data by default. The table below evidences how this type of information aligns to the five principles in the Open Data strategy

- Secondly, to encourage broad consumption and re-use of data by sharing and aggregating from multiple sources. Hence, we avoid compiling the same data many times from different purposes and data is exposed to wider use with resultant improved checking and quality improvements

- Thirdly, in order to allow information to be easily aggregated across repositories both locally and regionally and nationally, then a standard definition is required. Through this project the Open Referral UK[8] standard has been developed which is also aligned to the International standard. If local areas want to aggregate their data, and it is recommended that this is beneficial to improve the customer experience, support better outcomes and improve commissioning insight, then adopting this standard will save the time in developing a new local standard

- Finally, which aligns to one of the principles below, publishing the information as Open Data will allow broader innovation where others can use the information for new applications, purposes and applications.

The Government strategy for open data consists of five principles that are set out in the table below with the associated rationale for how this relates to local service information.

[5] See iStandUK write up of the Lancashire 2016 workshop here: http://istanduk.org/2016/12/19/service-finder-app/

[6] Defining Open Data – Open Knowledge Foundation, 3 October 2013 https://blog.okfn.org/2013/10/03/defining-open-data/

[7] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/254495/131031_2013_DCLG_Open_Data_Strategy.pdf

[8] https://openreferraluk.org/

| Government Strategy Principles | How this relates to local service information |
|---|---|
| Open Data by default | Information about local services should be widely shared / available and there is no reason for this not to be Open Data. |
| Focus on quality and quantity | Information about local services should be extensive and must be accurate - both as Open Data and as closed data (non-Open data) |
| Useable by all | Everyone has a right to know and able to access information about what services exist |
| Releasing Data for Improved Governance | Information can help commissioners understand what is being commissioned<br>Publishing the data will help underpin the drive to publish accurate data as others will hold the system to account for its validity (where data is often currently inaccurate) |
| Releasing Data for Innovation. | Data could be used innovatively to drive new applications and help open opportunities for example around chatbots / voice activated access to services and maintaining information about system capacity. |

This project, in collaboration with OpenCommunity, has now developed the Open Referral UK[9] standard as a formal extension of the international Open Referral[10] standard. Adopting the standard will provide that common language to underpin sharing and aggregation of information between partners, both locally, but also regionally and nationally.

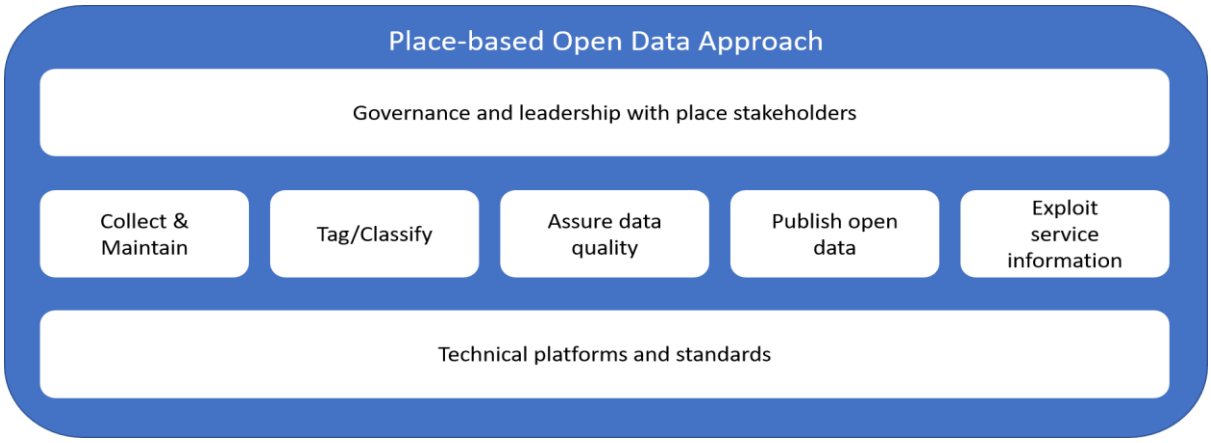
## 1.3 What do you need to be successful?

The purpose of the pilots was to work with the councils and their "place-based" partners, such as Clinical Commissioning Groups (CCGs), Voluntary Sector Groups and Police Forces, to implement and learn from more joined-up approaches to managing, assuring and publishing service information. The summary learning is that success is about a journey; it is not something that requires a one-off investment, but rather demands change in processes and behaviours by partners and perhaps some re-alignment of existing software capability.

This document sets out an emerging maturity model to support this cultural journey, that identifies the key elements partners should look to get right that will underpin robust, joined-up and efficient processes in order to deliver a single, trusted and accurate set of information. Adopting the Open Referral UK standard may well form part of that journey; the primary objective is trusted accurate information about a broad range of local support and activities where adopting that standard can play a role in achieving this objective.

The pilots set out with an expectation that four areas are important – the collection, classification, assurance and publication of the information. What became clear is that success demands these four areas and also a number of other capabilities to be in place. The diagram below identifies the **seven key capabilities** that need to be in place locally:

[9] https://openreferraluk.org/
[10] https://openreferral.org/




The table below summarises 'what good looks like' against these critical areas; more detailed definition is included in section 5 of the document. Delivering against these seven sets of requirements will underpin locally a more reliable, more extensive and more trusted set of information.

| **Maturity Model Domain** | **What good looks like** |
|---|---|
| Governance and leadership | • Recognition by "place-based leadership" of the issues and the benefits of improving the accuracy of service information<br>• Recognition and re-iteration of the importance of reliable and accurate information to key initiatives such as social prescribing - these will drive the demand for process and behaviour change required<br>• Strong project management will be necessary through a programme of work to address the inevitable issues of working multi-agency |
| Collect and maintain | • Agreement between partners to regularly review information (at least every other month)<br>• A recognised approach, probably supported by software, where many people are involved in collecting and maintaining information – able to provide updates and send amendments<br>• Some well-defined and trusted communities playing a role in helping to maintain reliable information<br>• Service providers are expected and contracted to maintain accurate information about their service offers |
| Tag / classify | • A single common approach to classification<br>• The tagging scheme ensures that searches return a smaller and highly personalised set of options and allow information to be aggregated for analysis and to create a broader set of information |
| Assure data quality | • Identified individuals responsible for assuring / checking information<br>• The role of assurance will be undertaken by different people for different service lines |
| Publish data | • Control over how information is published, so data sets are easily added to or removed from directories<br>• Different sets of information published to different "end-points / directories" and consumed by different apps, systems and developer vendors<br>• Data is published to recognised open data forums for wider exploitation |

| | |
|---|---|
| Exploit service information | ● Clear plans and campaigns for communication, awareness raising and promotion of the various “end-points” to access the information<br>● Key advocate roles, like social prescribing, have mobile access to consume the information |
| Technical platforms and standards | ● Well understood delineation between data and system<br>● Data is shared automatically between different software platforms |

A key factor for success, that is implicit in the table above, is the decision and ongoing commitment by local partners such as Local Authority departments, CCGs, Social Prescribing Link Workers, Voluntary sector organisations and the local Council for Voluntary Services, local Police Force, housing providers, schools and others to work together. The findings from the pilots are that this will demand effort and will need senior leadership of key initiatives like social prescribing or other transformation / digital programmes to drive higher expectations upon the quality of the information that is made available.

This document provides greater evidence and examples of the pilot approaches that underpin the above emerging maturity model; it is structured as follows:

- **Section two** sets out the issues that exist and the benefits that can be achieved through improving how information is managed locally. This includes some user stories from the pilots and some examples of longer-term opportunities
- **Section three** introduces the pilots and then relays some of the related experiences and decisions in the course of their involvement
- **Section four** provides summary learning through a maturity model and a broad range of issues, barriers and lessons learned
- **Section five** sets out an outline plan and provides some understanding of the costs and resources that may need to be in place
- **Section six** introduces the technical considerations.

## 1.4 Recommendations

The recommendations from the pilots focus on the opportunity, the benefit and the headline actions that will help local areas to improve the accuracy, the trust and the use of information about local support services.

- Place-based leaders are recommended to understand and champion the importance and the value of accurate and reliable information about local services in supporting the success of critical initiatives such as social prescribing
- Partners are recommended to work together locally; this is never easy and needs to be defined as regards the overlaps across organisation boundaries, but represents the most effective and efficient approach to bringing together a single set of reliable and trusted information
- In working together as a place-based partnership, organisations are recommended to consider in a joined-up way how the related costs and the benefits of ensuring accurate data are shared across the local system.
- In looking to work together to aggregate the relevant information, local partners are recommended to adopt the Open Referral UK standard that has been developed through this initiative and in partnership with the Open Data Community
- The community of private and public sector developers applying the Open Referral UK standard needs to be supported. Suppliers can play a key role in helping local partners

adopt the standard and improve the control over the accuracy of information. Some resources may be available through OpenCommunity. Influence and support to retain and build on the established technical group would be beneficial

- A number of tools may be beneficial in supporting local partnerships as they move towards adopting the standard and improving the accuracy of their information. In particular, a tool to help migrate or map data from existing “classifications” to the Open Referral UK standard; and a set of synonyms that may simplify and improve the accuracy of information that is loaded into the local repository
- Finally, it is recommended that there remains a process or forum to allow capturing of evidence both locally and internationally about the impact and evolving models and software to improve the quality and accuracy of information as well as the impact on better outcomes for citizens. The pilots to date are urged to capture this over the next 12 months and provide an update somehow.

# 2 Why should a place consider this document?

This section of the report:

- identifies the issues that many areas will recognise with regards to maintaining reliable information about local services
- sets out the benefits that can be achieved through addressing these issues to deliver a single repository of accurate information about all services locally
- summarises some of the user stories from the pilots and how frontline workers and customers are benefitting
- outlines some of the longer-term opportunities.

Hard work for the frontline and the citizen
Research in Hull City Council identified 45 services in one directory and 25 in another, all promoted as supporting Mental Health.

There was an overlap of 13 services that were included in both directories, but different information was held for 6 of these services.

Citizens, advocates and frontline professionals are left wondering which set of information is accurate?

Does one database promote certain services as they believe some are better than others?

Which one shall I contact?

Will the service actually make a difference to me / the case in hand?

The end result is often confusion and frustration and sometimes a decision to do nothing.

## 2.1 Issues

There are arguably five key measures that define the accuracy or value of information collected:

- **Reliable**: Local service information needs to be up to date and accurate
- **Aggregable**: Information can be brought together so it is accessible in one place
- **Efficient**: There are currently several service directories with duplication of effort
- **Understandable**: People must be able to easily understand what is actually offered or available
- **Useable:** Access to the information should be supported by a well-focussed search for services suitably based upon a person's location, eligibility, circumstances and availability.

However, there are a number of issues that prevent local partners from achieving this vision, the key ones are outlined below.

**Unreliable approaches to assuring the accuracy of the information**
As soon as information is published it starts to become out of date. The **importance, the level of resource and the rigour** applied to updating and assuring the accuracy of the information is **often very limited**.

**Duplicated effort**
Each “place” is likely to have a minimum of five and perhaps many more separate directories that are all **maintained by stand-alone processes, using different sets of language** and available through different websites and formats.

**Big picture not possible**
A more technical barrier is the **use of different formats and different classification** in each list or directory. This makes it difficult to share the information, and can also make it hard for partners / citizens to understand what services actually do as the description or classification varies.

**Too many services**
Citizens and users of the information are often left confused and frustrated where they are recommended 30 or 40 different services, many of which may have minimal real value for the specific case or individual.

**Technical infrastructure**
Even where partners are willing and motivated to develop a single set of information, th**e technical infrastructure to enable this is often not in place**. People tend to share information by emailing an Excel spreadsheet of varying quality records that is then manually copied into another database or spreadsheet and often manipulated again to be published on a website – all taking significant effort and increasing the risk of errors. The opportunity for simple technical solutions to "read" from a single database is significant and inexpensive.

**Crossing Organisation boundaries**
One of Blackburn with Darwen's neighbourhood's borders Bolton and generally residents access Bolton services and would really like to view services with them at the centre rather than suffering from council boundaries.

**Not joined up**
From a customer perspective, the **information in separate directories or lists tends to be "siloed" in its scope** and not reflective of peoples' lives and their needs – either geographically or in terms of different service needs. This re-enforces the citizen experience that they need to contact multiple points and repeat their story to gain the right support.

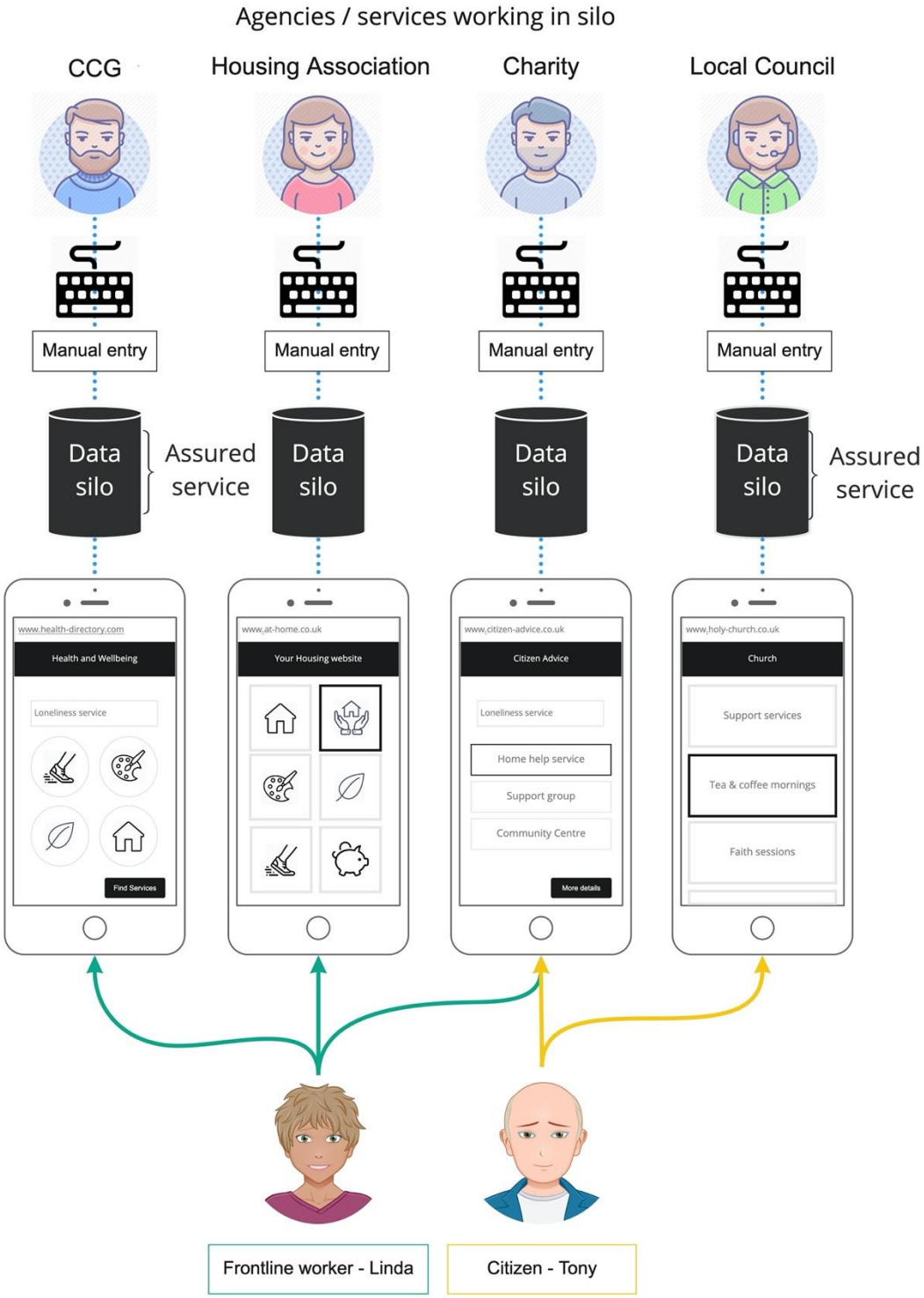
**Unwilling to share information**
**Partners are often anxious and unwilling to share information.** This is driven both by perceived inaccuracy of others' information and by a degree of protectiveness about sharing. Particularly for the voluntary sector and for small commissioned services, their own list of local services can be seen as a highly valued proprietary asset – rather than a shared cog in a wider system.

**Google is not the answer**
A common response is that "Google is the answer". Where accurate, reliable and valuable data is maintained, then Google (and other electronic and self-service means of consuming the information) is certainly a very important tool; however, the pilots all recognise that there is a need to improve the information in the first place.

**Organisation rather than service**
Much of the information that is captured tends to be about a**n organisation rather than listing the distinct services and timings of different groups**. In Elmbridge, the user story captured below describes this as the "signposting spaghetti" experience, where they are signposted from one place to another, repeating their story, until they find an actual service they can attend.

The diagram below provides an overview of the situation that may exist currently and could exist.

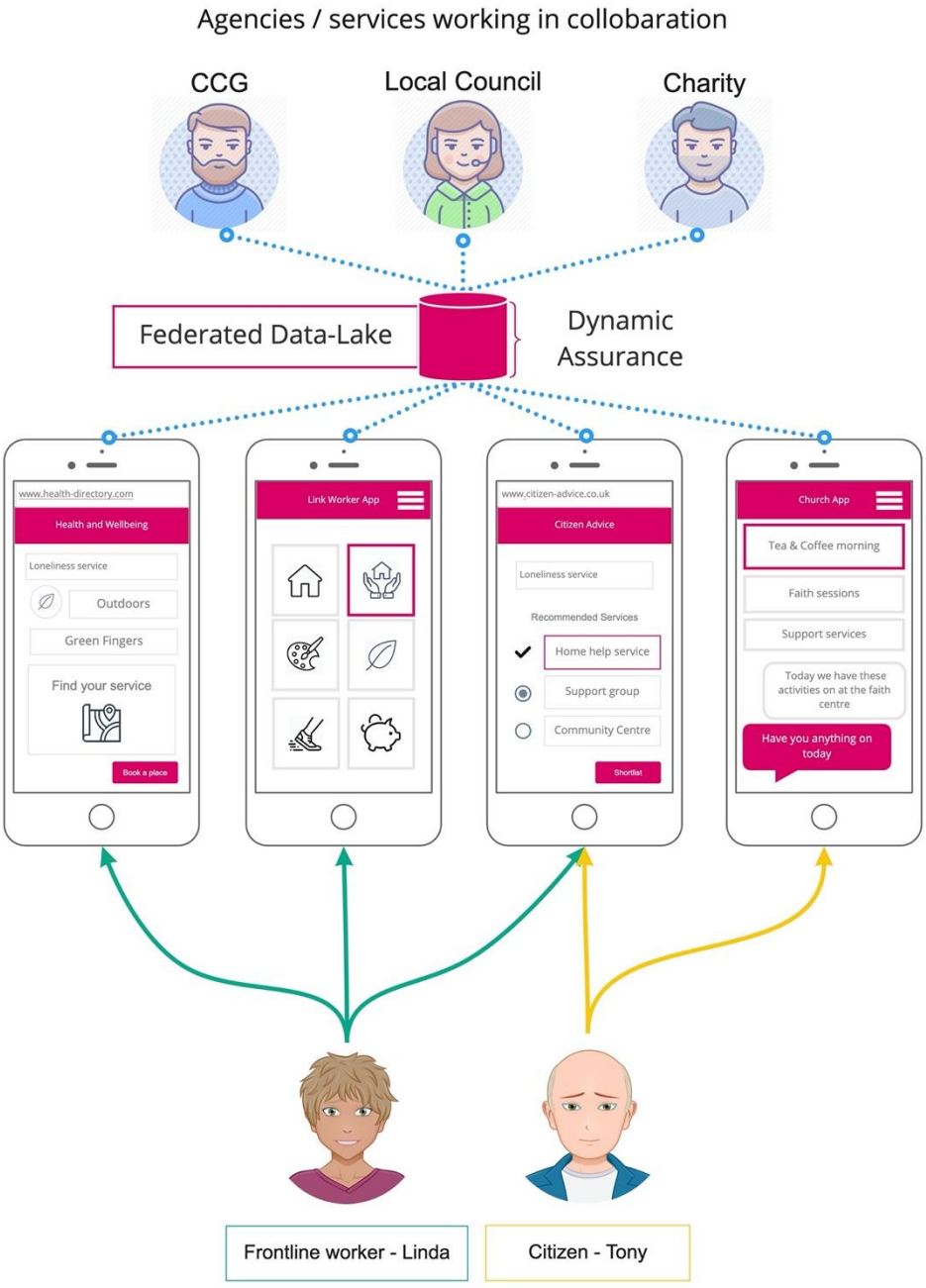
The left-hand diagram results in information that is often out of date, can have errors and is difficult to comprehend and hence is not trusted by citizens or by professionals. The right-hand diagram shows that standards are key to joining up this system in allowing partners to work together to collect information once and re-use it many times across the broadest local public sector set of businesses.




**Undistributed Data**

Incoherent service information across all sources

digital gaps




**Distributed Data**

Access any data across any information source in common format

digital gaps

## 2.2 Benefits

There are three types of benefits defined in this section

- The direct benefits of local partners working together – both in terms of more efficient joined-up working and delivering more accurate and more trusted data
- The benefits that fall out from having a more trusted set of information – in terms of having information that can better help improve peoples' lives
- The broader opportunities to exploit the more accurate data sets.

**Direct benefits**
In its simplest form, the benefits of working together through adopting the Open Referral UK Standard are:

- More accurate data
- Greater trust in that information
- A broader set of service information (covering more services)
- A richer set of information (that has more detail about each service – rather than the baseline which may often be simply information about the providing organisation)
- Information that is more easily understandable by consumers.

**More and better information**
the estimates in all three pilot areas, Blackburn with Darwen, Hull and Elmbridge through user story evaluation, is that on average 20-30 per cent of the time (some individuals put their estimates at 50 per cent of the time) frontline workers believe that there is more and better information that they could not identify or were unaware of. This leaves both workers and citizens frustrated and undermines the value and role of the support in place

These are important improvements; it is likely to become a virtuous circle with increased trust, driving more contribution into the data set, thus ever improving the quality and accuracy of the information. The scale of the improvement that is possible will vary;

There are two direct **financial benefits** of the improved and more joined-up approach to capturing and maintaining information.

The first is that information will be captured once only, where currently it may be collected multiple times.

The second financial benefit relates to the time taken by advocates and frontline workers to carry out their own research about services that may support a customer

**COUNT – Collect Once Use Number of Times**
In the Hull City example, 50 per cent of the information related to Mental Health from one database and 30 per cent of the information from the other database was included in both repositories and therefore was captured twice. This is a significant inefficiency if the same picture is replicated across all 1,800 datasets. The estimate in the Open Community Discovery report in 2019, is that this efficiency might equate to **£11.69 million** per annum nationally. The Hull City example indicates that this benefit may be **considerably higher**.

**Indirect Benefits**
A broad range of advocate, social prescribing and frontline workers rely to some extent upon a trusted set of information about local activities and support services. Improved information better enables them to help people transform their lives and avoid falling into higher levels of need and greater cost to public services.

The Kings Fund estimates that the funding gap for the NHS will be £20 billion by 2023/34 and the LGA estimates that by 2024/25, the funding gap for Adult Social Care alone will be £3.5 billion. The key drivers for closing these gaps (preventing the costs from occurring) are prevention-based initiatives such as social prescribing, self-access and other digital transformation. What role therefore does more accurate information play in the success of these initiatives?

**Pilot improvements**
The estimates from frontline workers in the three pilot areas vary from 20-50 per cent of the time, the information that they access is not accurate or does not include the range of services that might be appropriate for that client. At a simplistic level this is arguably a 20-30 per cent improvement in those schemes.

**Research made easier**
In Elmbridge, the approach is that the Community Link Worker meets the referred client to understand their needs and interests. They then arrange to meet the individual a few days later, to give them time to carry out their research, which consists of a stand-alone web trawl and phone calls and checking through the hard copy directory. A reliable, accurate and extensive range of services and activities all available through one access point would save significant research time, thus creating significant additional capacity. This will also better support the individual who can be part of a co-production process to choose the identified services and decide on the two or three best fit services, rather than being presented with a list of perhaps 10 a few days subsequently. This may indicate that there is significant opportunity for increased capacity, where two meetings and some stand-alone research can be reduced to one longer meeting.

The new NHS Long Term Plan launched by the Government in 2019, sets out that 2.5million additional people will benefit from social prescribing that will form part of new closer working between health and care professionals; the overall ambition is to prevent 30 million hospital visits at a saving of £1 billion per annum. At the same time, GPs estimate that 20 per cent of appointments are at least in part driven by an underlying social care need or anxiety, such as loneliness, depression or performing a caring role. Social prescribing and the ability to help people regain or retain an active set of interests with local support in the community can play a significant role in affecting these wider determinants of health and hence reduce visits to costly professional clinical time.

This provides anecdotal but compelling evidence that better information has an important role to play in delivering significant financial impact to the system and helping transform peoples' lives.

## 2.3 User Stories

Through the programme, frontline workers were interviewed to capture their views and experiences. These are included in the complementary report on User Stories[11], which recounts and summaries their views and expectations. The views from social prescribing roles, wider voluntary and third sector functions, Adult and Children's social workers and commissioners were all broadly similar. Some of these summary experiences are summarised below:

**Key Worker in Blackburn with Darwen**
"We are salespeople trying to persuade vulnerable people to change their lives. If we don't have accurate and reliable information, then we are working with one hand tied behind our back. The services out there are the products that can change peoples' lives, but if the information about those products is inaccurate, we have limited chance of making the sale and limited chance of helping them change their lives."

1. We have a very small window of opportunity to help vulnerable people – and where the information is unreliable it can undermine our opportunity to provide the right support in that limited window of opportunity

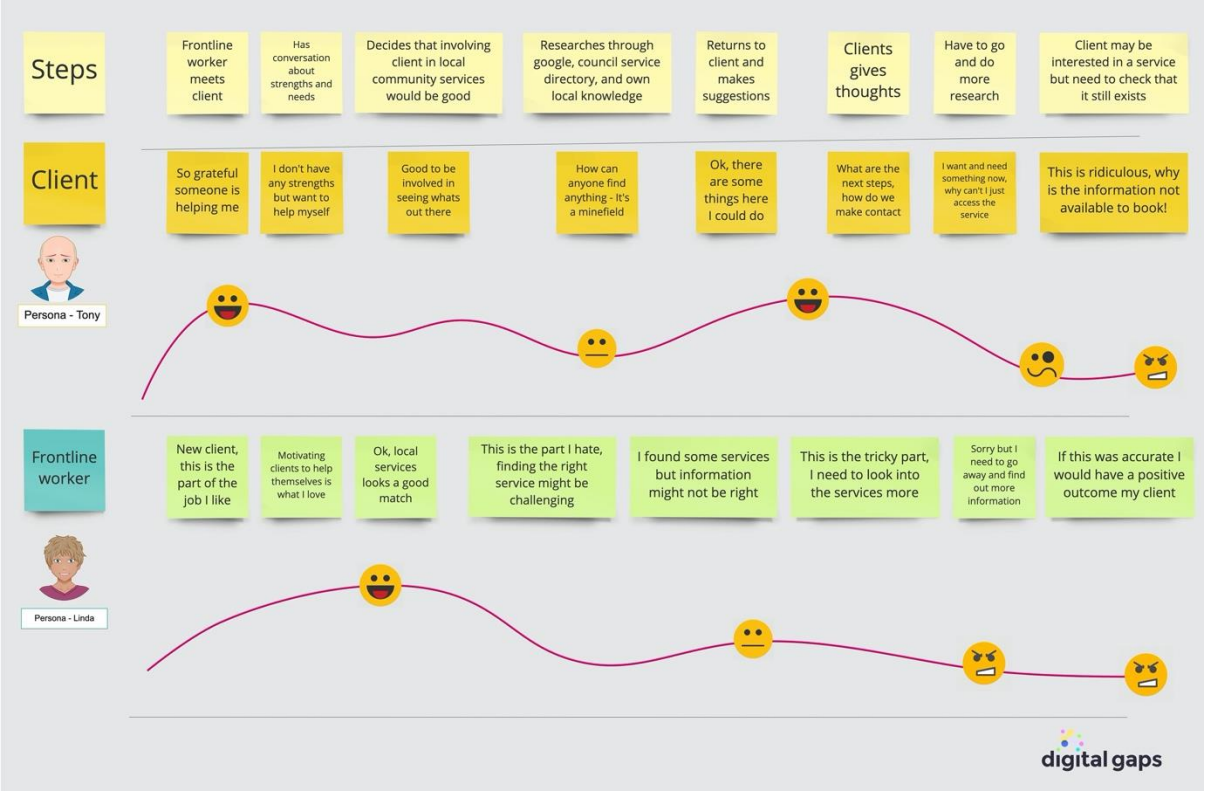
2. Many of the people we support have a fairly low level of trust in support services. Often, we struggle to identify services or fail to contact someone reliably as the phone number is incorrect or simply no-one answers / there is a long wait. This all confirms their suspicions and they are less likely to act upon the recommended support or next steps

3. Vulnerable people often have underlying mental health frailties and can easily be discouraged from taking actions to improve their lives and their health. Where they have some suspicion that the information is not reliable, this can be enough to deter them from attending

4. Given the lack of trust that the advocates / social prescribers have in the information, they sometimes recommend six or seven activities or groups. If they had more trust in the data and more insight about services then it may be better to target just one or two activities. This could be more likely to persuade the individual to take that step forward successfully.

The user journey below provides a case study demonstrating the importance of having the right information, at the right time and in the right place.

[11] The User Stories document to accompany this report is online here: http://e-sd.org/VdVca/




## 2.4 Longer-term opportunities

The final set of benefits to recognise is the wider opportunities that a reliable set of service information will provide to this opportunity.

**Increased development of "apps"**
The development of a single set of information nationally that is defined to the same specification will create a significant market for the development of web sites, mobile phone and other applications (apps) that use that data. Currently, there is no real market for this type of development as the data is in varying structures, unreliable and low volumes as it is all based on different local classifications. Widespread adoption of the Open Referral UK data standard will create a single market for developing targeted apps around specific issues such as Dementia or carers for example.

**Improved commissioning to meet service gaps**
Currently there is no definitive view of what local services are available or absent in different locations – at a national, regional, or local level. A single set of information captured using a common classification will allow commissioners / leaders insight into their localities. There may be under- or over-provision of certain types of groups, activities or services. This will allow over time the opportunity to stimulate or influence the market to shift the offers or support away from areas of over-provision into those areas where there are gaps and higher levels of need.

The engagement officer for the Humberside Police and Crime Commissioners and the programme lead from Hull City Council both see this as a significant step forward, in commenting:

“The wider links or determinants between poor health and care outcomes and other indicators around housing, Mental Health, police call outs, deprivation etc are well known, but we don’t have the tools to understand how this is playing out across Hull; it is like we are trying to understand what is happening with one hand tied behind our back or one eye closed. Bringing together the picture of all community capacity and networks across the city will help us identify gaps in support and hence commission or develop the market to close the gaps and start to break the well-known causal links.”

# 3 Introducing the Pilots

As part of the cross-government approach to tackle loneliness across England, DCMS, in collaboration with the LGA, digital experts, local authorities, MHCLG and the voluntary sector, committed to launch pilots to explore how better use of data can help make it easier for people to find local activities, services and support that help to tackle loneliness.

Three pilot areas, Elmbridge District Council, Hull City Council and Blackburn with Darwen Council, were chosen through an open invitation that asked councils to describe how they would scale and sustain a model to deliver more reliable and accurate local service information. Since then, each area has set out to:

- Test and refine the existing open data schema that LGA had originally developed in June 2016 for a number of specific service areas – could the schema be used to include more voluntary and community services which are so critical for helping lonely or other vulnerable to maintain / rebuild connections with their communities
- Explore how partners might work more closely together to improve the accuracy, reliability and hence the trust that partners have in local service information
- Develop models and share experiences relating to
    - The capture and maintenance of the information about services across a local place
    - Testing and developing an approach to tagging or classifying information so that the data can be shared by all partners locally
    - Assurance of the information – what approach and how often should information be assured
    - Considering models for sharing / consuming the information.

This section of the report provides some insight into the approach of the three pilots and shares the feedback and learning to help support other areas in preparing for and delivering their own programmes locally. The document also references work undertaken by Bristol, Dorset, North Yorkshire and South Gloucester who are all delivering similar programmes and attended a number of the programme meetings.

To provide some context, the paragraphs below provide a short overview of each of the initiatives in each of the pilot areas. This is provided in very short bullet point form, but more information is available on request.

## 3.1 Blackburn-with-Darwen Council

The key drivers for Blackburn council for the project are:

- Creating a reliable source of information on local services and groups to support four key initiatives that form the core of the health and care prevention agenda - namely
- Creating reliable information to support the E-Red Book initiative so that young mothers have links between the clinical support for them and their new child and the broader community and voluntary services and groups that may be supporting them. The E-Red Book is an NHS pilot to move the “Red Book” that is used as a record for all clinical appointments, information and advice during pregnancy and for the first lives of a child’s life.

The key decisions and approach in Blackburn have been:

- To commission technology that better supports the process around capture, maintenance and assurance of the information
- To find a way for better and easier collaboration in collecting local service information

## 3.2 Hull City Council

The key drivers for the programme in Hull City Council are:

- increasing the breadth of information available on the Adult Social Care repository, called Connect to Support. This forms a core offer within the new Adult Social Care delivery model
- providing rich and accurate information for the Beverley Road Corridor initiative which is a multi-agency “locality tasking” programme
- ensuring that the social prescribing initiative, called Connect Well, can access a rich and accurate set of information about local support.

The key decisions and approach in Hull have been:

- That all resources that work in the locality tasking teams (Fire Safety inspection officers, Anti-Social Behaviour co-ordinators, Early Intervention Support Workers) will take on a role to support collecting and maintaining information in their localities. This is being piloted in a priority Neighbourhood area called The Beverley Road corridor
- Both the social prescribers’ team, Connect Well Team, and resources in the Beverley Road Corridor will have mobile access to the directory – with the expectation that the initiative is providing more accurate, more reliable and a broader set of information
- The data within the repository has been re-classified so that it matches the proposed schema. This was a significant investment of effort. The system used for the Children’s Local SEND Offer and the Adult Social Care
- The local Community and Voluntary Service (CVS) is running a pilot where they are taking on the assurance role for all services across the City that relate to homelessness. For the pilot this is being delivered without any consideration of the cost to the CVS; there is a recognition that this would need to be funded in the future for it to continue, but a model for remunerating the activity has not been considered
- The project has been led by the Advice and Information Steering Group within the Adult Social Care team which is attended by voluntary and community stakeholders. This joined-up leadership has been important.
- Hull’s software provider, Public Consulting Group (PCG), has developed a form for collection of the information that can be used remotely and that has a workflow for the information to be assured by the central Adult Social Care Information Management resource
- All of the service information collected, over 1,800 data sets, has been tagged to the new schema model
- The open data captured within the single repository will be exported by the API and will be used in three other initiatives across the council

- Mi-Maps which is a geographical mapping tool. This is for citizen access and includes all information about council and local services such as bin collections, bus routes etc. The information on hyper local services will now also be made available (although the exact format or “data layer” for visualising this has not yet been resolved)
- Power BI – which is an analysis engine, targeted at improving strategic commissioning. This initiative brings together “incident data " about the volume of incidents and take up of services with the information collected through the pilot in terms of all services available. This will allow strategic analysis of any gaps (or any over-provision) between incidents / needs and service provision.

## 3.3 Elmbridge Borough Council

The key drivers for Elmbridge council for the project are:

- Reducing reliance on a hard copy Directory, which is re-printed every two years at a cost of £10,000
- Improving the accuracy and the breadth of information for the Social Prescribing Service and other key initiatives such as CHEER (Concern and Help for East Elmbridge Retired).

The key decisions and particular approach in Elmbridge have been:

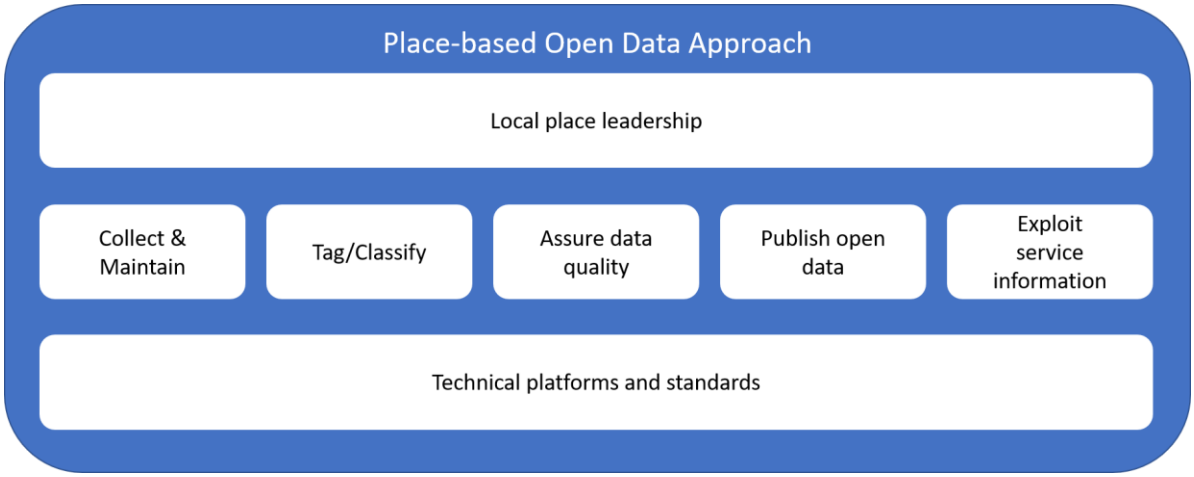
- To procure the necessary software capability that will better support collection, maintenance and assurance processes and that will allow publication of the resulting data
- To adopt the Open Referral UK standard
- That the Local Authority will take on the role of assurance for all service information
- To work solely across Elmbridge initially - making Surrey County Council aware of the work, but at this stage not looking to introduce the standard across the County
- To maintain the Directory in the short-term as some elderly people prefer a hard-copy rather than an electronic record
- The vision is that in the future, the ideal approach would be to be able to print out a small individual list or recommendation of the services / activities that may be beneficial for the individual

# 4. What are the lessons for others to learn? An emerging "maturity model"

This section provides an overview of the evolving insight, decisions and approaches that were adopted across the three pilots. It allows some context and understanding of the decisions taken and provides a comprehensive view of the sorts of issues, risks and lessons that have been learned through the process.

The insight is structured around an emerging maturity model to offer definition about the journeys taken by the organisations to move from having a large number of silo-based directories with fairly restricted and out-of-date information towards having a single set of accurate information about all services that is available as Open Data.

As a reminder the areas are included in the diagram below:




## 4.1 Local place leadership

Governance and leadership are critical to drive a step-change in how information is managed across a partnership to deliver more accurate, broad and user-friendly data that are trusted and used by all partners and available to others for strategic uses. It was recognised in all pilots that capturing and holding information can sometimes be viewed as a competitive advantage between partners; the partnership needs to encourage a culture where information is a shared asset and the focus can be on the quality of the support and the outcomes people achieve, rather than a preoccupation with "signposting" that has limited real value (the value lies in the destination rather than the signpost).

Creating this leadership is best enabled through recognising the role that more accurate information plays in key strategic initiatives such as social prescribing. Open Data also provides another lever to gain the right joined-up leadership; although as an enabler it can create a risk that it becomes a technology initiative that is divorced from the impact or outcomes that it is driving.

A good tool to help leaders understand the complexity and the issues in maintaining accurate information is to establish a baseline that demonstrates the current duplication, inaccuracies and confusion that may exist. This baseline should also look in detail at the technical infrastructure in place and may helpfully consider the customer experience or journey at a detailed level. It is also critical to understand the stakeholder environment in terms of users of the information, who is responsible for publishing the information and who commissions the services that should be providing the information.

### Local place leadership Issues, barriers and lessons learned

Information is often seen as an unimportant domain and an area that is not given due priority in critical projects and programmes. Senior leadership will be needed to help drive the work forward. It is important for any local project to establish a good understanding of the issues, capture some evidence and anecdotes and be able to help leaders understand the importance of accurate and trusted information.

## 4.2 Collect and Maintain

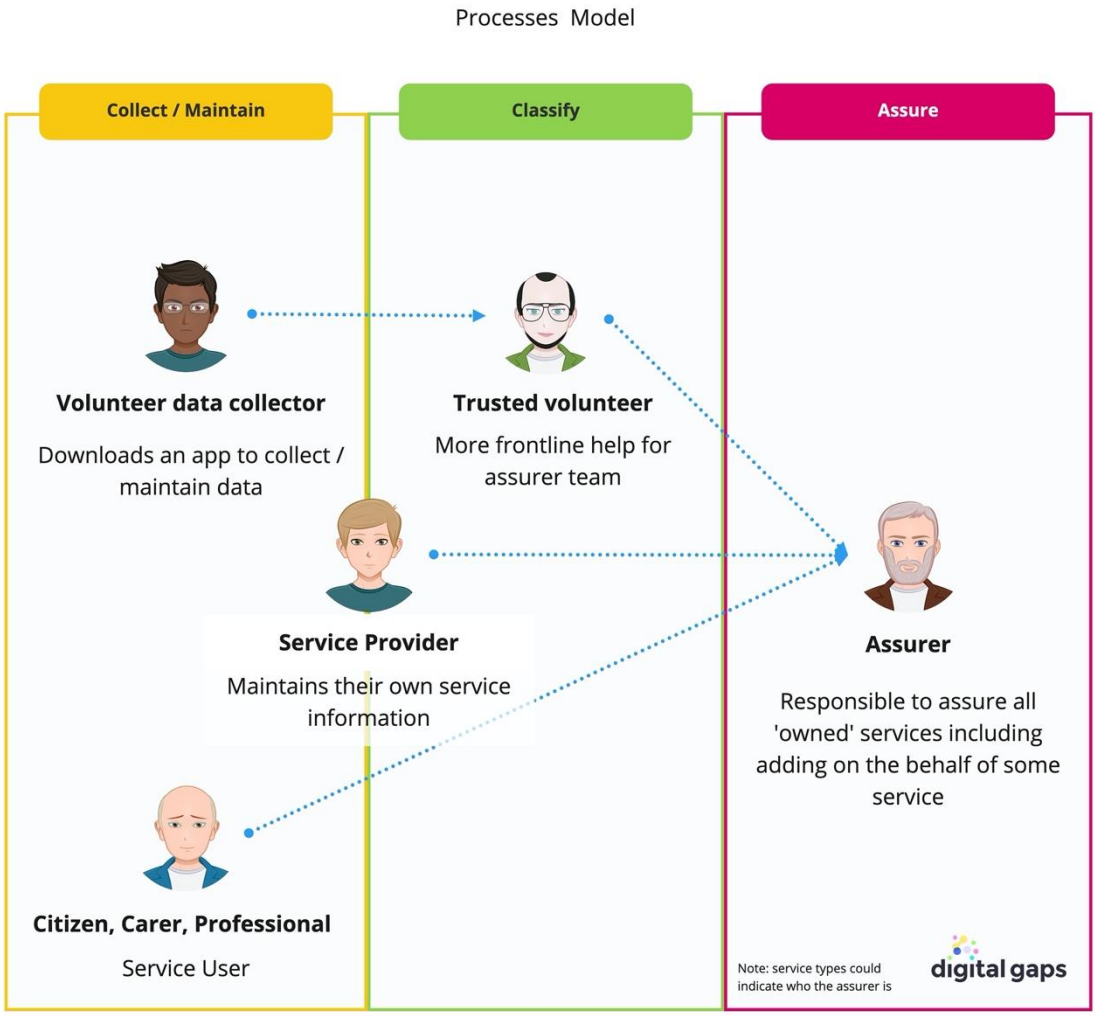
The greatest opportunity, but the most complex challenge, is to move to a model of collecting and maintaining information once. This is the core purpose of promoting a place-based approach; to have individuals playing a collaborative role within a shared and ongoing process to identify and collect information; thus, de-duplicating where the same service is being "maintained" in multiple directories by different people.

Frontline workers were vocal through the pilots about the inaccuracy of the different published directories and many rely upon their own personal notebooks or lists. They are frustrated by the inability to share new information or insight with others as there is no recognised process or capability to make it happen. The appetite and expectation for joined-up and accurate data sets exists.

It is the adoption of an Open Data standard that provides the opportunity for the organisations to work in partnership in this way. However, making this a successful adoption process will rely on clarity of the role that people have within the shared processes and adherence to those roles. Software can play an important role in controlling and supporting these roles.

The diagram below, that was captured by Bristol suggests that there are three separate roles / steps:

1. Collecting
2. Tagging
3. Assuring.




In many instances these roles may be done by the same individual, but in others may be split across different people or even different organisations. The diagram shows different approaches or models where a service provider may undertake all of the steps, whilst for a different data set, other individuals, such as frontline workers or volunteers may take on a role to collect and maintain.

There are three key approaches that are being trialled in the pilots;

- An increased expectation on service providers to update information themselves that relates to the services that they provide – this relates to both statutory and third sector services
- Using frontline workers to play an increased role in identifying updates to service information. This approach is referenced as “empowering the crowd”. This is both an approach that allows new services to be identified and that can be used to maintain information about existing services
- Engaging volunteers and citizens themselves to play a role in helping identify and maintain information about valued local services.

The reflection at this stage, as it is far too early to offer any views on relative success, remains that the process to provide updates has to be simple or “day job” pressures take over. An estimate may be that a large city, such as Bristol or Hull may have 3,000-4,000 services and hyper-local activities and groups. It is easy to understand therefore the need to simplify this

process and also why many directories currently tend to focus on statutory services given the time commitment it requires. The more the model adopted has service providers themselves and front-line workers all supporting the process of information maintenance, then the greater the opportunity to broaden the services covered to include those hyper-local and hyper-valuable activities and groups. Where a model (which is likely to be the case in most localities) relies on one person doing web-research and phoning up service providers to periodically update the data, then the information is highly likely to be more inaccurate and more limited in coverage. It can be seen, therefore, why an initiative such as social prescribing may be valuable in driving changed behaviours by creating the expectation / need for a richer set of information.

The opportunity to identify a committed community that may act as volunteers to help maintain accurate information remains a significant opportunity. In all three pilot areas, the approach is predicated on some sort of remuneration or commissioned role, but communities themselves, like families with a child with a disability for example, may be motivated to help maintain accurate information as they recognise its value implicitly.

The other critical learning from the pilots is the impact that software can have upon these processes. Most software that exists is focused more upon the storage or the publication of information, rather than the more involved and resource intensive (but arguably more important) capture and maintenance processes. Through the programme, the following suppliers have engaged in the work and have delivered some updates to their software in recognition of this. This remains an ongoing journey; the tools and updates continue to evolve and will make the processes more efficient in the future. At this stage conclusions are not possible about their relative success in terms of either perception of use or whether people continue to play these active roles in supporting the maintenance of the information.

Software suppliers who have supported the pilots are:

- Service directory suppliers
    - Public Consulting Group - delivering the Hull directory and open API
    - Placecube - delivering the Blackburn with Darwen, Bristol and Elmbridge directories, all with open APIs
- Service Finder tools
    - Doc & Tee - delivering a tool for Bristol service support organisation WellAware and an illustrative “white label” version that can be personalised for any other directory using the Standard
    - Vidavia - delivering an open source service finder that can be attached to any directory using the Standard
- Support tools
    - Porism - technical partners to the LGA, delivering tools to help other suppliers use the Standard and validate data

North Yorkshire County Council have an internal software development capability and have developed their own solution that is compliant with the Open Standard schema and is currently completing the checks against the API tools. The solution encompasses both front-end publication and search tools (including synonym matching that improves the usability and intuitiveness of the searches for citizens) and back-end tools to better support collection and assurance of the data. As they continue to refine the product in line with the Open Referral UK standards, they would be interested to partner with any council considering how they move forward. More details on the product including how to contact them is included in the appendix.

**Collect & maintain issues**
There are five summary key issues:

- Firstly, that capturing and maintaining information is often not recognised as important
- Secondly the approach to collecting and maintaining information is likely to be silo-based driven by statutory minimum / obligation rather than considering the value of broader and more accurate data and the impact of this on the customer experience and outcomes
- Thirdly, even where agencies recognise the importance of good information there will be anxieties about trusting each other to share the information
- Fourthly, that broadening the numbers of individuals who might play a role within collection and maintenance processes will need more tightly defined processes and may benefit from considering the role that software might play
- Finally, that adopting Open Data will help bring people together and that Service Providers need to be mandated wherever possible to maintain their own information, again considering how software can support this.

## 4.3 Tag/Classify

Tagging or classifying data is in some ways a more simplistic change, but more detailed in terms of technical understanding needed. All directories and lists will interpret or classify information using different terminology or taxonomies; which creates four areas of concern that had been identified in previous user research and confirmed by the pilots in classifying local services:

- without a common standard locally for classifying services, then it is very difficult for the commissioners and strategic decision-makers to understand the supply and demand of local services across the place.
- where classification is left to service providers, they tend to over-classify, in effect that their service can address a very wide range of client needs. The impact is that searches can return a confusing and off-putting number of potential choices for consumers of the information.
- information can be misleading about “access” to services, in terms of the specific eligibility for example. In addition, services listed are often simply organisations which can result in a frustrating experience where people are signposted from one organisation to another (and sometimes back to the original organisation, which frontline workers in Elmbridge refer to as Spaghetti signposting) in the hope that someone can identify an actual service or activity that may be beneficial to the case in hand.
- finally, information cannot be aggregated easily so consumers are left having to contact multiple lists to ascertain the right breadth of information and are then left confused about overlapping services that may be described differently.

The pilots were presented therefore with an LGA classification model (which has been deployed in local government for at least a decade) that looks to resolve these issues as follows.

The first is solved by a nationally controlled taxonomy of terms available from the LGA.

The second is resolved by only allowing the type of service to be classified and linking need to that rather than directly to the service.

The third is resolved through these means:

- an enumerated list (will become a taxonomy) to indicate whether access is allowed or requires some form of authorisation or professional referral
- recording minimum and maximum age conditions where they exist for a service
- recording other service eligibility criteria (e.g. gender) by reference to an LGA maintained taxonomy

**Classification**
The NHS make use of SNOMED and the LGA is looking to map those terms to their service-type model.
Open Eligibility is an American taxonomy but doesn't link to the supporting metrics recorded by UK government

The fourth is resolved by offering a term to filter services out.

The pilots all agreed to test out and report back. The LGA were not suggesting their model is the only way but trying to find a model that might provide a national picture of local services. This model is also related to the existing local government business model which can link function through services to citizen needs. Note there are other taxonomies in use - e.g. open eligibility.

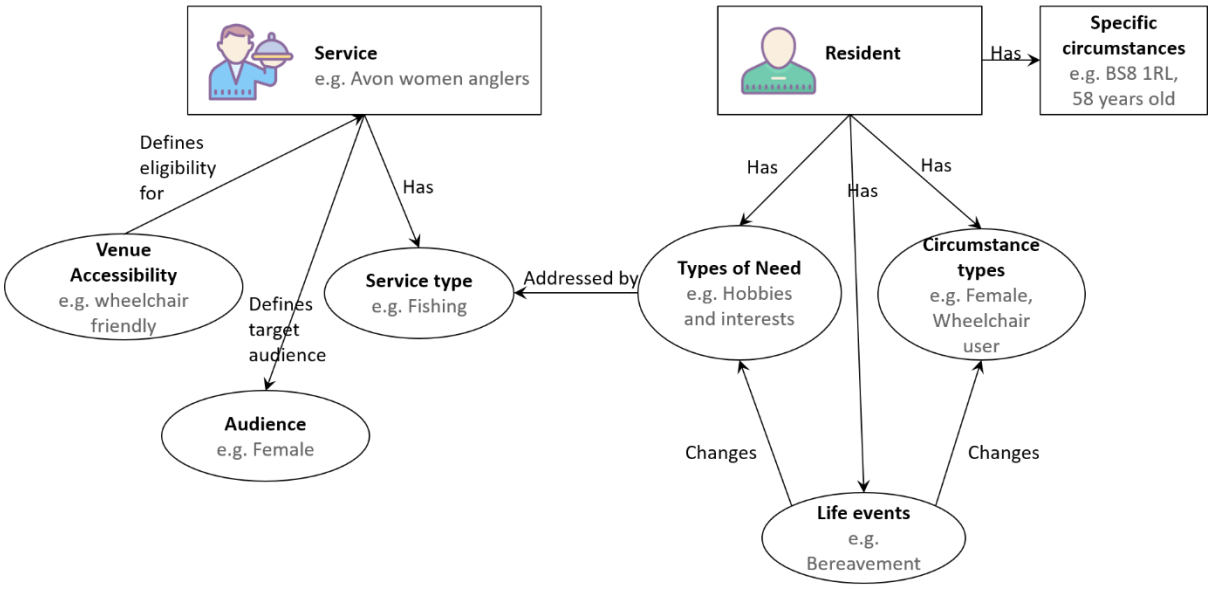
The model provides four fields to classify against a service using two potentially national taxonomies.

- Audience type: will specify the circumstance that the service is aiming to help (this is not an entitlement but rather just help for someone to align a person's circumstances against)
- Service-type: specifies the type of service which in turn can be linked to needs and circumstances
- Session access: specifies whether a client can drop-in or needs a professional referral, to make an appointment.
- Eligibility: will specify a circumstance that you have to have in order to access this service

The audience type, eligibility and session access can be used as simple filters when searching for suitable services, but the service-type is linked to another taxonomy which can be accessed by an application engaging with a citizen. That application can determine the needs and circumstances of a citizen and the model will deliver the appropriate service-types. The idea is that the two sides – service description and citizen needs are linked through a centrally controlled model to bring consistency rather than it being left to how the particular service provider happens to classify their services. The central model has been created by the LGA but is based on heuristic thinking and it is expected to learn from data gathered over time.

The above resolutions were accepted as making sense. The pilots have subsequently scrutinised the terms in the LGA model by applying different persona sets (see pilot user stories). The result is further confirmation of the logic and the general support for the model. The critical stage is now live testing on the frontline by workers engaging with clients and seeing whether the suggested services make sense.

One of the biggest challenges remains ensuring that a collector/assurer selects an appropriate service-type. The pilots have undertaken an exercise to link service keywords to service-types as part of the taxonomy. This will allow software suppliers to embed intelligence into the search function that can select appropriate service options based on the service description or keywords entered by the users / consumers. A basic example of the model is given below but further details are available in the technical details section.




**Tag & Classify Issues**
The technical nature of tagging and classifying can become overly complex. It is best left to people with the right technical mindset. A common classification however remains fundamental to allow data to be aggregated and shared.

The work to date has not robustly tested the LGA classification model. Further live testing is required. Other models for classification exist. What remains fundamental is that local areas have a common taxonomy so that information can be aggregated and also presented in a common language to consumers and in the future mobile app and 'bot' interfaces.

## 4.4 Assure data

Whilst it is fundamental to collect the data, it is imperative that this data can be relied upon; inaccurate data is more frustrating for everyone than no data at all, particularly where there is a desire to move towards using more mobile 'phone and other apps to allow people to consume / look at the information. Frontline workers, GP practices, those delivering social prescribing, people involved in developing mobile phone apps all express frustration with inaccurate and not up-to-date information.

The step change here will rely less upon the capability of the software, but more importantly the cultural approach to holding someone to account for the accuracy of the information. Assurance is therefore less about a defined process, but more about a number of policy decisions that should be agreed by local place-based leaders, such as the following

- How and to whom is the responsibility allocated and then enforced/monitored
- Considering GDPR issues where the data is going to be Open Data
- How often is assurance undertaken
- Whether there are any mandatory fields within the data to be collected
- How to enforce/educate stakeholders about the use of personal information
- How any costs might be shared between partners/stakeholders.

The paragraphs below provide some insight from the pilots into these considerations.

The estimate is that more than a third of all service providers, including a number of small hyper-local groups, could be trusted to take on the role to assure their own data. Where smaller providers don't have the resource, commitment or technical skills to self-assure, then this can be assigned to other organisations or individuals - based either on location / geography or based on the service type. Both models are being trialled through the pilots - allocated in the main to voluntary sector organisations, local council or multi-agency teams in Blackburn, Elmbridge and Hull respectively.

**Assurance Frequency**
Blackburn are aiming to assure all services every 3 months.
Hull are aiming to assure every two months.
Elmbridge are aiming to assure every 3 months.
All are not yet sure of the resource implications, but all are committed to find out as the benefits of having reliable information is deemed so worthwhile

Personal information cannot be used within Open Data; no-one knows the broad range of uses that the data may ultimately be used for, therefore consent for those uses cannot be given. This remains an ongoing issue to all the pilots. Most have adopted a policy to exclude any data suspected to be personal and to replace it with the named assurer or link worker for that service or area (depending on their approach). Blackburn have decided to help their local community services to move away from using personal email addresses and personal phone numbers, regardless of the speed of adoption of Open Data, but this will obviously take time. The time to educate this broadest system of small local groups and services about personal information is an important consideration.

Currently, all partners locally will be investing effort to maintain information, but from the end-user perspective, this currently results in non-trusted and inaccurate data that tends to focus on the statutory services, omitting the more valuable local groups and activities. The burden of collecting more accurate, joined-up information, even with some improved rigour around assurance, is unlikely to be a higher cost than the current effort. However, the allocation or share of the costs may be different.

The ideal model is that all providers maintain and assure their own information, but accepting this may take time and in some instances needs some simple improved software capabilities, then different models may be needed in the interim. For the pilots, there has been no model to share any costs, as any additional activity (related to collect, maintain and assure) has been absorbed as a pilot and is linked to other commissioned activity. The information below provides an overview of the types of activities and indicative effort for various assurance related functions. Further work is required to consider how these roles and costs are absorbed; the experience and perception is that more accurate and more trusted data that covers a broader range of services is valuable, so an approach to resolving how to fund this effort should be possible.

| Assurance Level | Step | Notes | Year | Duration | Worker hourly rate | Expenses | Frequency per year | Costs |
|---|---|---|---|---|---|---|---|---|
| Monitor Service Provider | Demo system | Show the software that the service provider will be using and assess assurance level | 1 | 2 hours | £12.00 | Travel costs | 1 | £24.00 |
| | Set up on system | Will need to set up provider and ensure all service data entered | 1 | 1 hours | £10.00 | None | 1 | £10.00 |
| | Quartely monitor | Review services information | 1,2 | 1 hour | £10.00 | None | 1 | £20.00 |
| | Handover | Ensure service provider is aware of the collection and assurance policy & procedures | 2 | 2 hours | £12.00 | Travel costs | 1 | £24.00 |
| Total £ | | | | | | | | £78.00 |
| Trusted Service Provider | Invite to join | Will need to send web address or invite from software | 1 | 15mins | £10.00 | 10p per call | 1 | £2.50 |
| | Review progress | Perhaps a review if an error is reported | 1,2,3 | 15mins | £10.00 | 10p per call | 1 | £7.50 |
| Total £ | | | | | | | | £10.00 |
| Proxy for Service Provider | Initial call | Could take a few calls to get through | 1 | 15mins | £10.00 | 10p per call | 1 | £2.50 |
| | Initial email | Could take some time to find email | 1 | 15mins | £10.00 | None | 1 | £2.50 |
| | Set up on system | Will need to set up all service data | 1 | 3 hours | £10.00 | None | 1 | £30.00 |
| | Assurance visit | Unknown organisation may need a visit | 1 | 3 hours | £12.00 | Travel costs | 1 | £36.00 |
| | Identify service information error | Could mean dealing with email or phone call or frontline worker | 2,3 | 30 mins | £10.00 | None | 1 | £10.00 |
| | Amend service information | Service may have changed session time or venue but this will need checking | 2,3 | 30 mins | £10.00 | None | 2 | £20.00 |
| Total £ | | | | | | | | £101.00 |
| Improvement | Content | Looking to improve their service description to make it more readable | 3 | 3 hours | £15.00 | Travel costs | 1 | £45.00 |
| | Safeguarding | Looking to improve policies and procedures | 3 | 3 hours | £15.00 | Travel costs | 1 | £45.00 |
| | Service improvement | Looking to improve their service, maybe become a social prescription etc | 3 | 3 hours | £15.00 | Travel costs | 1 | £45.00 |
| Total £ | | | | | | | | £135.00 |

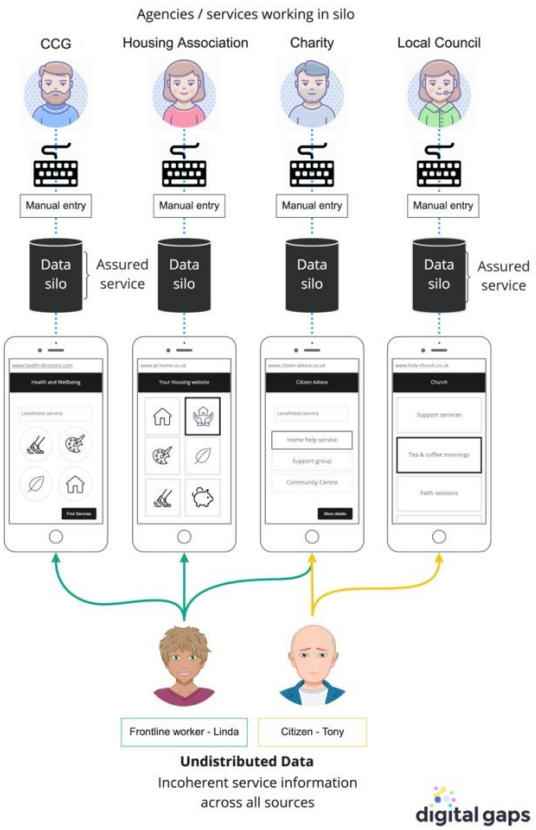
## 4.5 Publish Open Data

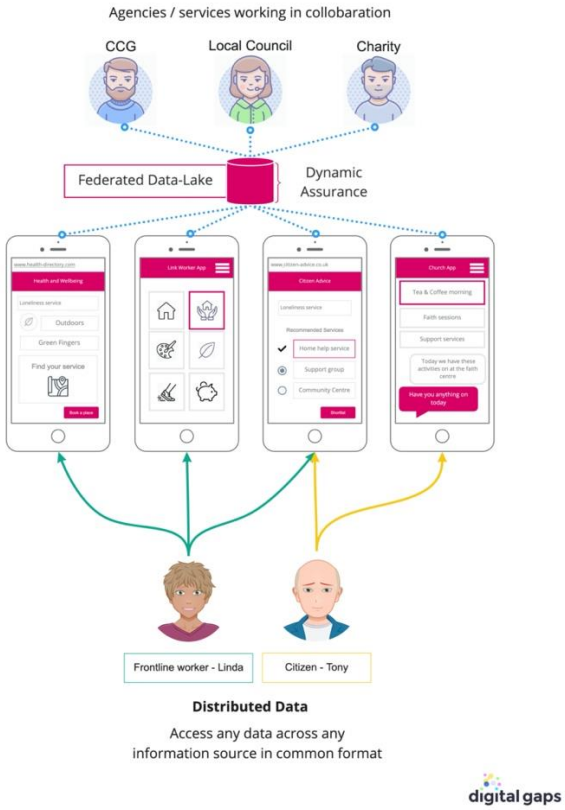
Publication is another step that may well have software dependencies. The value of a publish step is that data records can be hidden temporarily if they have not been assured. Where Open Data is published, this ought to be made available through a defined Application Programming Interface (API) and so be available for batch extractions of all updated data or instant consumption (with no delays that would result from taking copies of live data) and with a variety of filtering options.

Recognising a separate step to publish the data will also help partners to recognise that the same information from a database can be published using different branding, different formats and can also publish different sections of the information for different uses. Recognising a stand-alone step to publish the data will help drive these discussions.

## 4.6 Exploit the information

The driver for improved accuracy and breadth of information is likely to be increased expectation and greater recognition of the importance of the data; pushed by key strategic initiatives such as Social Prescribing. The more accurate, the broader and the more detailed (time and locations for example), then the broader its potential appeal and value. The diagram below demonstrates this shift away from ‘narrowly defined information’ and towards a broader model that seeks to maintain information in a more joined up way and looks to allow this to be consumed / used in a broad range of different processes, systems and applications.




Moving towards a more ambitious process for using / allowing Open Data to be used across various different needs / consumption will take time to realise. There is also a significant constraint with regards to the standards and policies that software suppliers use. Software suppliers through the pilot accepted the value in a distinction between the function of the system and the data within it. The concept of Open Data relies upon recognising data separately from the function of the system that might use that data. Focusing on where and how information will be surfaced at the “front end” (the customer, advocate or social prescribing use of the data) will help identify the various opportunities / end points for exploiting the use of the information.

Through the project, the LGA invested in a small piece of software to demonstrate the sort of features a “service finder app” might offer. This is open source software and hence available for re-use by any council or software supplier. This has helped the pilot to view their data and test whether the classification model is working. It is hoped that other developments might evolve some of the thinking in the demonstrator app to exploit the richer and more accurate data that is made available. The volume of data that could become available is significant; it is easy to envisage in the future that new apps, new processes and new uses of the information may arise that will focus on smaller sections of the information. This may be about different niche client groups such as those with Diabetes, people at risk of feeling lonely, those suffering episodes of poor mental health; or may be about different attributes relating to the services such as demand, supply or capacity constraint issues.

The other opportunity to exploit the information relates to the opportunity for more strategic understanding of gaps and even demand across the system. Commissioners across the system in all three pilot areas recognise the opportunities in this respect; Chris Oakley, Adult Social Care commissioner, from Hull Council echoed the views of others when saying

> “The wider links or determinants between poor health and care outcomes and other indicators around housing, Mental Health, police call outs, deprivation etc are well known, but we don’t have the tools to understand how this is playing out across Hull; it is like we are trying to understand what is happening with one hand

tied behind our back or one eye closed. Bringing together the picture of all community capacity and networks across the city will help us identify gaps in support and hence commission or develop the market to close the gaps and start to break the well-known causal links."

## 4.7 Technical platforms / standards

The estimate from the pilot is that there can be many thousands of hyper-local services that offer support networks and activities locally. These are the types of service of greatest value to a social prescribing model or similar initiative. However, keeping the information about these services up to date is an enormous challenge – and technology can have a role to play in both improving the review and assurance processes and sharing the resulting data efficiently.

An important step in recognising the role that technology can play is understanding that data recorded on a list or system should be seen as separate from the system which presents it to the person reading the information. This is a fundamental consideration in adopting Open Data and more broadly a requirement where there is a willingness to aggregate and share data, even if this is not made available as Open Data.

The following are some of the considerations around how technology might better support the process:

- Systems should comply to the standards within the Open Referral UK schema
- Greater efficiency, accuracy and consistency of data results from wider sharing of data from a single source
- A standardised approach to maintaining and sharing data may present opportunities to rationalise and so reduce the cost of the system infrastructure deployed by partners
- Technology can be implemented such that responsibility for maintaining and assuring the data can be spread across more people and improved with some automation.

What is important is that partners involved locally with the capture, presentation and use of information about local services should:

- Understand all current technology involved currently to support these processes
- Identify and understand how they fit together and identify any opportunities to rationalise where the role or function of the software is duplicated
- Ensure that any re-procurement / replacement of capability mandates applying the Standard and has processes for ensuring it is correctly applied
- Have plans to realise any financial savings and performance improvements that could be achieved through rationalising software and improving how the systems might work together.

# 5. Technical Considerations

This section describes how data was structured, gathered and shared in machine-readable ways according to standards established and tested by the programme.

The work was performed by a technical group comprising the LGA data team (with technical partner Porism), iStandUK, OpenCommunity representatives, Open Referral, Bristol Council, Buckinghamshire Council, North Yorkshire Council, Public Consulting Group, Placecube, Vidavia and other interested suppliers.

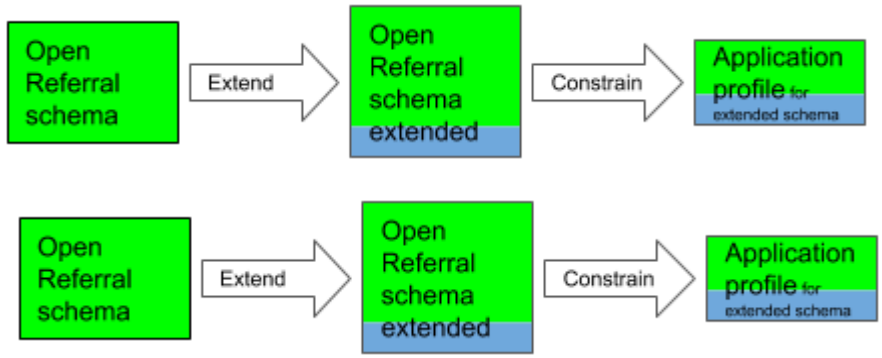
## 5.1 Open data standard

The place-based approach of collecting data as a team across many organisations to minimise duplication relies on all parties applying the same data standard. The standard and the application profile, describing how it should be applied, defines:

- the structure of data
- fields which are required and those which are recommended
- taxonomies to use for describing things (services, organisations, eligibility criteria, etc)

Standardised data can be combined from many sources so that frontline workers and residents are not impacted by the administrative boundaries of the different organisations trying to support them.

iStandUK (the local government standard body) extended the international Open Referral standard and defined an application profile to indicate the fields and vocabularies to be used.




**The resultant schema is known as Open Referral UK. The Open Referral UK website[12] describes the standard and has guides and tools to help adoption.**

The standard also defines standard API calls for retrieving and updating services and related data.

The Open Referral UK Data Standard Guidance[13] describes the schema data structure and all fields. Machine-readable resources are in Github[14]. Fields of relevant to the work on Loneliness are:

[12] https://openreferraluk.org/
[13] https://openreferraluk.org/Guidance/
[14] https://github.com/OpenReferralUK/human-services/

- service taxonomy terms which allow service types and intended audience types to be defined from the LGA Classification model (see below)
- service eligibility terms which allow eligible service user types to be defined from the LGA Classification model
- assured date which indicates how recently a service record was last assured, on the basis of which a publisher can decide whether or not to include it
- attending access which can be used to indicate whether a service is available to drop-in, needs an appointment or requires a professional referral. Technically this would allow services to manage any issues around latent / increased demand where that is a perceived risk or issue.

The document Aggregation, deduplication and validation of service data[15] discusses means of achieving a trusted directory pulling service data from multiple sources. Further work is needed to test and refine the process described. As part of that work, we recommend merging data feeds from councils with feeds from OpenActive[16] schedules of sports and wellbeing data and with feeds, from national bodies such as the Care Quality Commission and the Office for Standards in Education, Children's Services and Skills converted to the Open referral UK format. We can then assess the processes needed to remove duplicates before validating and enriching remaining data.

The following paragraphs summarise issues encountered in applying the standard and how they can be addressed.

## 5.2 Describing services, not organisations

A lot of pre-existing directories of services were directories of organisations who carried out many services. Frontline workers explained that sign-posting to just an organisation vastly reduces the chance that a client will engage. So much effort was expended breaking out individual service data from prior organisation data. Once data describes individual services, it is easier to identify services most suitable for an individual.

## 5.3 Achieving compliant rich data

Going from a theoretical data structure to one applied in practice by multiple directories using two different software suppliers required much dialogue with those suppliers, multiple iterations of data publication and small alteration of the specification. Some of the problems encountered apply only to early adopters while the standard is firmed up and better explained. However, it is clear that an ongoing technical validation and assistance service is needed to ensure data is truly compliant and interchangeable between directories and diverse software tools. We would expect the degree of support needed diminishes as more real-life examples emerge.

Most data gathered was converted from spreadsheets to populate databases with the capacity to hold all fields included in the standard. API web methods were developed to validate data and provide a richness score on service data included. The score is somewhat subjective as it involves weighting the importance of different fields.

Data collection software was developed by suppliers in parallel with pilot authority work. Now that software exists and databases are populated with initial services, all participating authorities are committed to extending and enriching service data maintained via this software.

[15] https://openreferraluk.org/Validation/
[16] https://www.openactive.io/

## 5.4 Getting take-up of the standard

Early adopters of the standard encounter issues that are ironed out before widespread use. They also get few practical benefits whilst there are few other directories or software tools that apply the standard.

This project set out to pump-prime adoption of the standard. It has resulted in compliant service data from four local authorities supported by two commercial directory suppliers. Whilst it is not cost-effective to provide more widely the degree of support and validation applied to the pilots, the lesson of this project and of the LGA's prior Open Data Incentive Scheme[17] is that a mixture of incentives, mandate and support is needed to widen take-up of the standard.

Those suppliers and council inhouse developer teams that have applied the schema or plan to do so imminently form the core of an Open Referral Technical Group that needs to lead refinement and adoption of the standard from now. This group can liaise with public sector lead groups that commission and manage service directories.

## 5.5 LGA classification model

The data standard is agnostic as to which taxonomies can be used to describe such things as services, intended audiences, eligible groups, locations, etc. However for data in a place-based directory to be meaningful, it needs all the service data it includes to apply the same taxonomies. For that reason, this programme tested, extended and applied taxonomies published by the LGA as standard lists[18].

The Open Referral UK document on Use of Taxonomies[19] indicates which LGA and other taxonomies are suitable for use with the standard and how they might be applied.

Use of national and international taxonomies does not preclude the use of more local taxonomies for local reference.

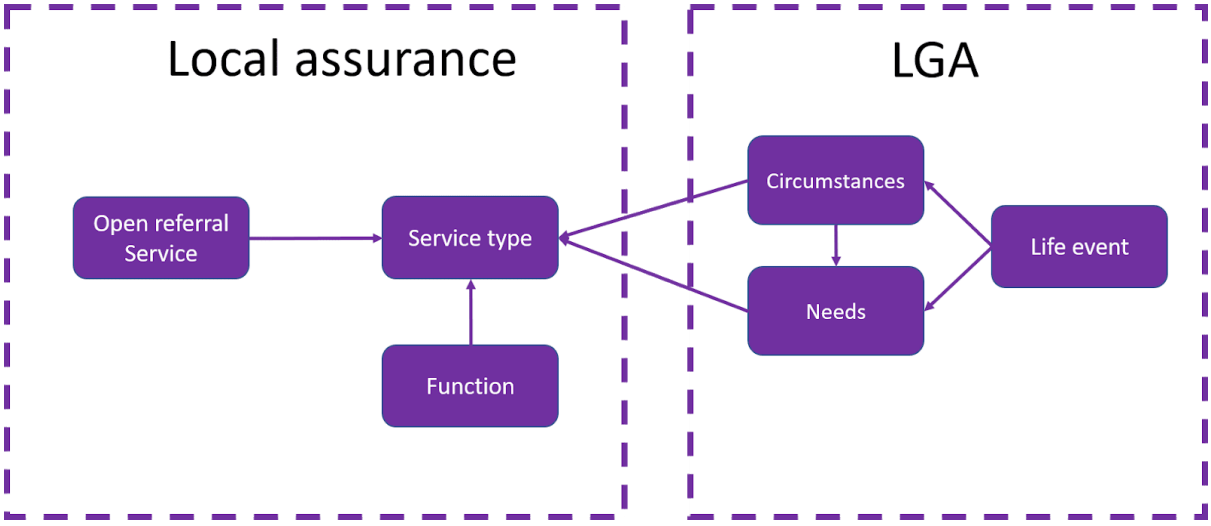
The LGA classification model is to associate services with a small number of standard service types and rely on a centrally maintained mapping from needs and circumstances to those service types in determining which services are best suited to an individual.

The LGA classification model is depicted in the diagram below. There are three taxonomies to understand:

- Service-type: describes the type of service that is being described
- Needs: describes the needs that a client might have
- Circumstances: describes the circumstances that the client may be in

**Note**: *Function is a grouping for local government service-types to show the power or duty legislation. Life event is a higher level of needs and circumstances. Both of these taxonomies already exist but have not been a focus for this programme.*

[17] https://incentive.opendata.esd.org.uk/
[18] http://standards.esd.org.uk/
[19] https://openreferraluk.org/UseOfTaxonomies/




Tagging services with service types is time consuming and organisations tend to over-classify their own services rather than focus on the main service they deliver. Hence sophisticated tagging software is needed to steer data input and assurance to assign service types correctly from a large number of potential service types. We see use of synonyms and machine learning as being future ways of improving service type tagging.

## 5.6 Open APIs

The Open Referral UK standard is quite prescriptive in its definition of an Application programming Interface (API) for querying and updating services. Unlike the international standard from which it is derived. The API is designed to achieve interoperability between service directories, service finders and other software components, such that individual components can be swapped in and out without any bespoke software development.

The Open Referral UK API Guidance[20] describes how to apply the API, which itself is defined according to the Open API standard using Swagger[21]. The standard and its documentation is compliant with the Government Data Service API Guidance[22].

Two tools help with adoption of the API:

1. The API Query Tool[23] connects a chosen API endpoint to query taxonomy and service data. It shows the syntax of API calls and the structure of results
2. The Connector Tool[24] c connects a chosen API endpoint to tools which consume data from the endpoint. It shows how APIs from different directories can be mixed and matched with different tools.

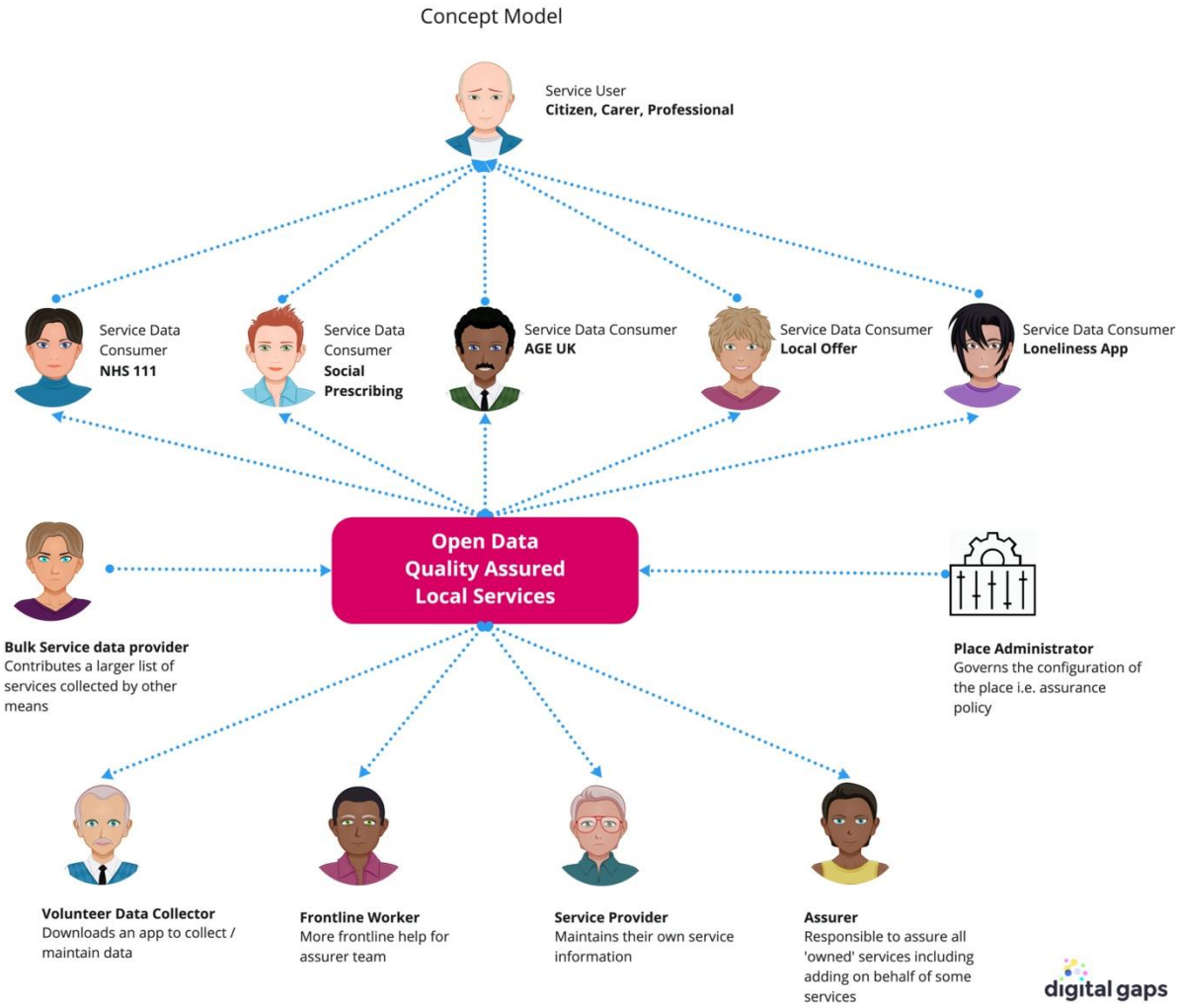
[20] Open Referral UK API Guidance is here: https://openreferraluk.org/API-Guidance/
[21] Open API standard using Swagger is here: https://api.porism.com/ServiceDirectoryService/swagger-ui.html
[22] Government Data Service API Guidance is here: https://www.gov.uk/guidance/gds-api-technical-and-data-standards
[23] The API Query Tool is here: https://opencommunity.porism.com/ApiQuery/
[24] The Connector Tool is here: https://opencommunity.porism.com/LandingBeta/

# APPENDIX A - Project Management Artefacts

This section of the document provides examples of project management artefacts that could be used as a framework by a local area to implement a programme themselves. They are all based on the experiences of the pilots.

## Conceptual model

The conceptual model provides an overview of the roles that may be involved in the future ways of working. This helps stakeholders understand what is being proposed.


Concept Model
Service User
Citizen, Carer, Professional
Service Data Consumer
NHS 111
Service Data Consumer
Social Prescribing
Service Data Consumer
AGE UK
Service Data Consumer
Local Offer
Service Data Consumer
Loneliness App
Open Data Quality Assured Local Services
Bulk Service data provider
Contributes a larger list of services collected by other means
Place Administrator
Governs the configuration of the place i.e. assurance policy
Volunteer Data Collector
Downloads an app to collect / maintain data
Frontline Worker
More frontline help for assurer team
Service Provider
Maintains their own service information
Assurer
Responsible to assure all 'owned' services including adding on behalf of some services
digital gaps

## Maturity model

The maturity model sets out some example statements that describe what the target outcomes in terms of types of behaviours and processes that might be in place in the future. This will help both to undertake a baseline comparing the current situation against the example targets and may help define a plan in terms of what changes are targeted at what phase of development.

The first table provides the summary and the second table sets out the details, offering some example statements with regards to the potential current behaviours, processes and approach that might be in place.

**Summary**

| **Maturity Model Domain** | **What good looks like** |
|---|---|
| Governance and leadership | ● Recognition by “place-based leadership” of the issues and the benefits of improving the accuracy of service information<br>● Recognition and re-iteration of the importance of reliable and accurate information to key initiatives such as social prescribing - these will drive the demand for process and behaviour change required<br>● Strong project management will be necessary through a programme of work to address the inevitable issues of working multi-agency |
| Collect and maintain | ● Agreement between partners to regularly review information (at least every other month)<br>● A recognised approach, probably supported by software, where many people are involved in collecting and maintaining information – able to provide updates and send amendments<br>● Some well-defined and trusted communities playing a role in helping to maintain reliable information<br>● Service providers are expected and contracted to maintain accurate information about their service offers |
| Tag / classify | ● A single common approach to classification<br>● The tagging scheme ensures that searches return a smaller and highly personalised set of options and allow information to be aggregated for analysis and to create a broader set of information |
| Assure data quality | ● Identified individuals responsible for assuring / checking information<br>● The role of assurance will be undertaken by different people for different service lines |

| | |
|---|---|
| Publish data | ● Control over how information is published, so datasets are easily added to or removed from directories<br>● Different sets of information published to different “end-points / directories” and consumed by different apps, systems and developer vendors<br>● Data endpoints are index and widely publicised for wider exploitation |
| Exploit service information | ● There are clear plans and campaigns for communication, awareness raising and promotion of the various “end-points” to access the information<br>● Key advocate roles, like social prescribing, have mobile access to consume the information |
| Technical platforms and standards | ● Modular approach to software implementation so data collection, storage and consumption are separated and interfaces between modules comply with the Open Referral UK standard<br>● Migration towards automated data collation and validation where possible |

**Details**

**Governance and leadership**

| **Baseline / low maturity** | **What does good like** |
|---|---|
| ● No shared recognition of the issues and the opportunity for delivering more joined-up and more accurate information<br>● No recognition / understanding by senior managers of the frustrations that citizens and advocates experience in accessing information about local services<br>● Not recognised or clearly articulated how accurate information is critical to delivering transformation initiatives<br>● Not clear where the strategic leadership is across partnerships in terms of managing this type of information<br>● Employees do not feel empowered to raise concerns where information is not accurate<br>● Limited awareness of the bigger picture with regards to the number of Directories and the resource invested to maintain the information | ● A senior Manager taking either a formal (i.e. a named role) or an informal lead in championing the need for accurate information to be maintained in a joined-up manner across the place<br>● Clear how and to whom to escalate any concerns about the accuracy of information<br>● An expectation for employees that they play a role and identify and escalate concerns where information is inaccurate |

**Collect and Maintain**

| Baseline / low maturity | What does good like |
|---|---|
| • Stand-alone processes, policies and practices for each Directory or agency that focus on maintaining information separately into stand-alone lists and directories<br>● Pockets of frontline workers and voluntary organisations will spend time maintaining their own lists that they may be unwilling to share – trusting their own research even if that has not been refreshed for months and even if the update process relies on imprecise web-research rather than direct confirmation by data owners.<br>● Approach to updating the information is probably an ad hoc process that happens on a very irregular timeframe often driven by new people, inspections or complaints about the accuracy of the information<br>● Neither frontline workers, nor community groups or citizens are involved in a joined-up process of maintaining information – despite often being more sighted on things that change. No process for their knowledge to be shared to update the information<br>● Software unlikely to support workflow processes of capturing or maintaining information – software usually simply a database or web input interface<br>● Defining what service information needs to be collected may be driven by statutory perspective rather than a more joined-up view of the customers journey, their needs and their actual experience in accessing and consuming information about local services<br>● Service providers have no service level agreement related to maintaining their service information regularly and accurately<br>● Role and responsibility around collection and maintenance of information may not clearly assigned or well-understood<br>● No policy for frequency of review of the information | ● A single policy and process across partners for capturing and maintaining information<br>● A “vision” or joined up view about how all partners should be working together to develop and maintain a single set of information<br>● People responsible legislatively for a specific Directory to exist recognise how their responsibility is met within the joined-up approach<br>● Software in place that makes the capture and maintenance of the information more straight forward / less time-consuming<br>● Service providers contracted to update and maintain information on at least 2-monthly basis<br>● Front-line workers understand and perform a defined role around helping to capture and maintain accurate information. This process is easy and well-supported by technology<br>● The cost (and the benefit) of maintaining information accurately is understood and partners have an approach for ensuring these costs are recognised and met |

| | |
|---|---|
| ● People don't understand the resource effort required to update information in stand-alone area let alone across the broader place perspective<br><br>● No understanding of how many separate pockets of information capture and maintenance are happening | |

**Tag / Classify**

| **Baseline / low maturity** | **What does good like** |
|---|---|
| ● Information in stand-alone directories will use different language and classification schemes to other directories<br>● Customers / users of the information may be confused about what services really deliver as classifications may use statutory service-type language<br>● Services tag / classify themselves as meeting many different needs / supporting many different population groups and hence searches can return confusingly long lists of identified services.<br>● Different classification means that service information cannot be aggregated to allow a place-based view to inform commissioning<br>● Different classification schemes make it difficult to share data between directories<br>● Lack of awareness that there are differing classification models in place locally.<br>● No consideration around the risks of latent demand and whether services have "capacity" to cope with additional demand | ● Adoption of a single language locally to tag / classify all services<br>● Software starts to help users by linking customer language and synonyms to the adopted classification model locally<br>● Information is brought together using the single classification to allow research into gaps / overlaps in types of services<br>● Analysis of search language helps to identify improvements to the classification used and helps inform consideration of gaps in service provision / pockets of demand<br>● Consumers of the information may be able to search based upon different types of terms (like needs, circumstances etc) to improve the personalisation of the search<br>● Analysis possible about where a "service" is not a service but is actually a "process" or playing the role of advocate. In other words, the service does not deliver a defined function, but provides support to help someone other groups or activities<br>● A process for feedback and allowing services that are "at capacity" to be 'not available' to prevent them becoming over-run. |

**Assure data quality**

| Baseline / low maturity | What does good like |
|---|---|
| ● No recognised step/process for assurance – it is simply about collection / updating or about publishing<br>● One person continues to perform all roles – collect, maintain and assure<br>● Responsibility for assuring all information is probably allocated to the same person – probably the owner of the directory<br>● No (or longer than 3 months) defined time period for review / updates to information<br>● No processes and no recognition of the need for monitoring / evaluating the accuracy and quality of the data<br>● There may be personal data published that may not conform with GDPR<br>● There are no mandatory fields and hence some of the published data may be very unspecified / sparsely populated and hence not very user-friendly | ● Assurance is a separate step – probably an approval that is part of a workflow for updating and publishing the information<br>● Agreed timeframe for regular review and assurance<br>● Data has mandated fields and hence more reliable information<br>● Assurance may be a role provided by different people for different data sets (service provider themselves or someone identified to take on role for all services in one domain)<br>● Clear understanding of the need for accurate information and some measurement of the quality of the data may be in place<br>● No personal information is included in the published information / data<br>● A local agreement for remuneration of the assurance role for certain service types or defined Geography for example<br>● Recognition that quality of content (how understandable and easy is it for citizens) is also important for assurance |

**Publish Open Data**

| Baseline / low maturity | What does good like |
|---|---|
| ● Information published in stand-alone directories<br>● Information is not seen as distinct / separate from software<br>● Software supplier may not allow information to be shared, may not conform to any recognised schema that would facilitate sharing<br>● Publish may not be seen as a separate process – in other words information is either deleted or published and cannot be “hidden” where something has not been assured<br>● No understanding of how information might be shared between different end-points or directories | ● Good understanding of how information can be captured once and then published or used many times in different uses or different directories<br>● Ability for information to be updated in multiple locations when it is changed<br>● Information can be “un-published” if it not accurate<br>● Clear understanding of the separation between “information” and a system that might capture, publish or use that information<br>● Other systems / suppliers will have applications that can consume the information when it is published<br>● Opportunities identified to have information published across geographical boundaries |

**Exploit the information**

| Baseline / low maturity | What does good like |
|---|---|
| ● No communication of or limited promotion of directories to consumers / users<br>● Limited understanding of who currently uses the information, how often and for what purpose<br>● No feedback / insight on whether users of the information value / trust the data<br>● Approach is that providing information is a statutory duty rather than a strategic tool that can support people and services better. | ● Significant promotion of the opportunity for people to access information – confident it is meaningful, understandable and accurate<br>● Community groups interested how they can help improve access to and consumption of the information<br>● Consideration of the revenue stream that information could generate<br>● Plans for collating information alongside other open data such as travel information to further help people access services<br>● All frontline workers have easy access to draw on the more reliable and richer data set. |

**Technical platforms / standards**

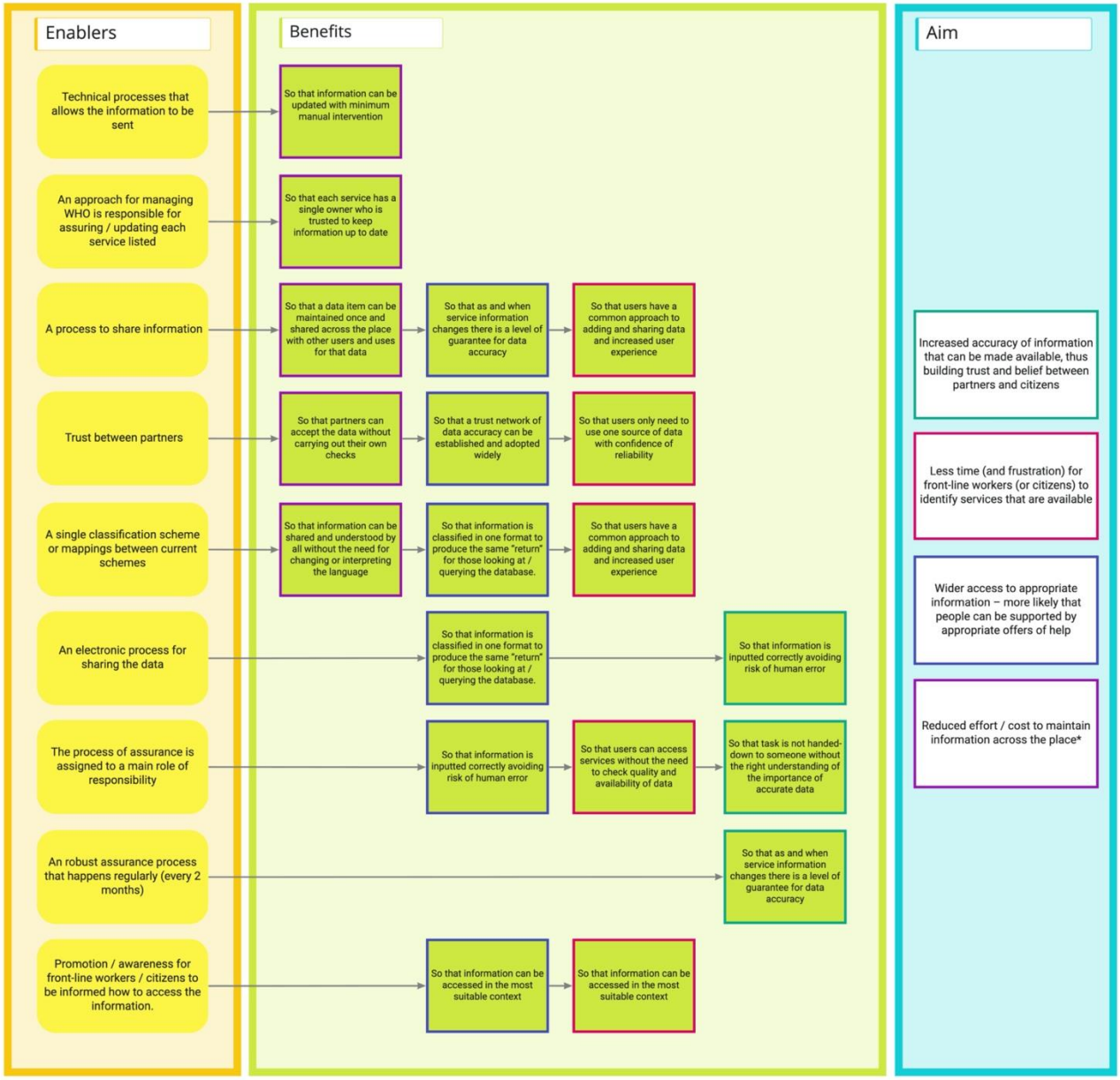
| Baseline / low maturity | What does good like |
|---|---|
| ● No understanding of the different technology used across the directories and the processes for collecting and publishing information generally<br>● Information and software seen as indivisible<br>● Software vendor tie-in with suppliers offering a closed system for capture, analysis and internal database calls to present service data<br>● Contracts with software suppliers do not enforce open data standards<br>● No joined-up understanding between technical roles across the place of the opportunity to simplify or rationalise system infrastructure<br>● Limited process management software capability to support the management of information – will probably focus just on data capture and publication to web-location | ● Adoption of the Open Referral UK Standard by all suppliers<br>● Good understanding of different technology and plans to rationalise / consolidate software<br>● A modular approach to software with interfaces between modules complying with the Standard such that anyone can be swapped out to implement gradual improvement and innovation |

## Benefit Maps

The benefit maps provide an understanding of the potential overall objective, the benefits that will be achieved and the enablers that need to be in place to deliver the necessary changes.

**Direct benefits**

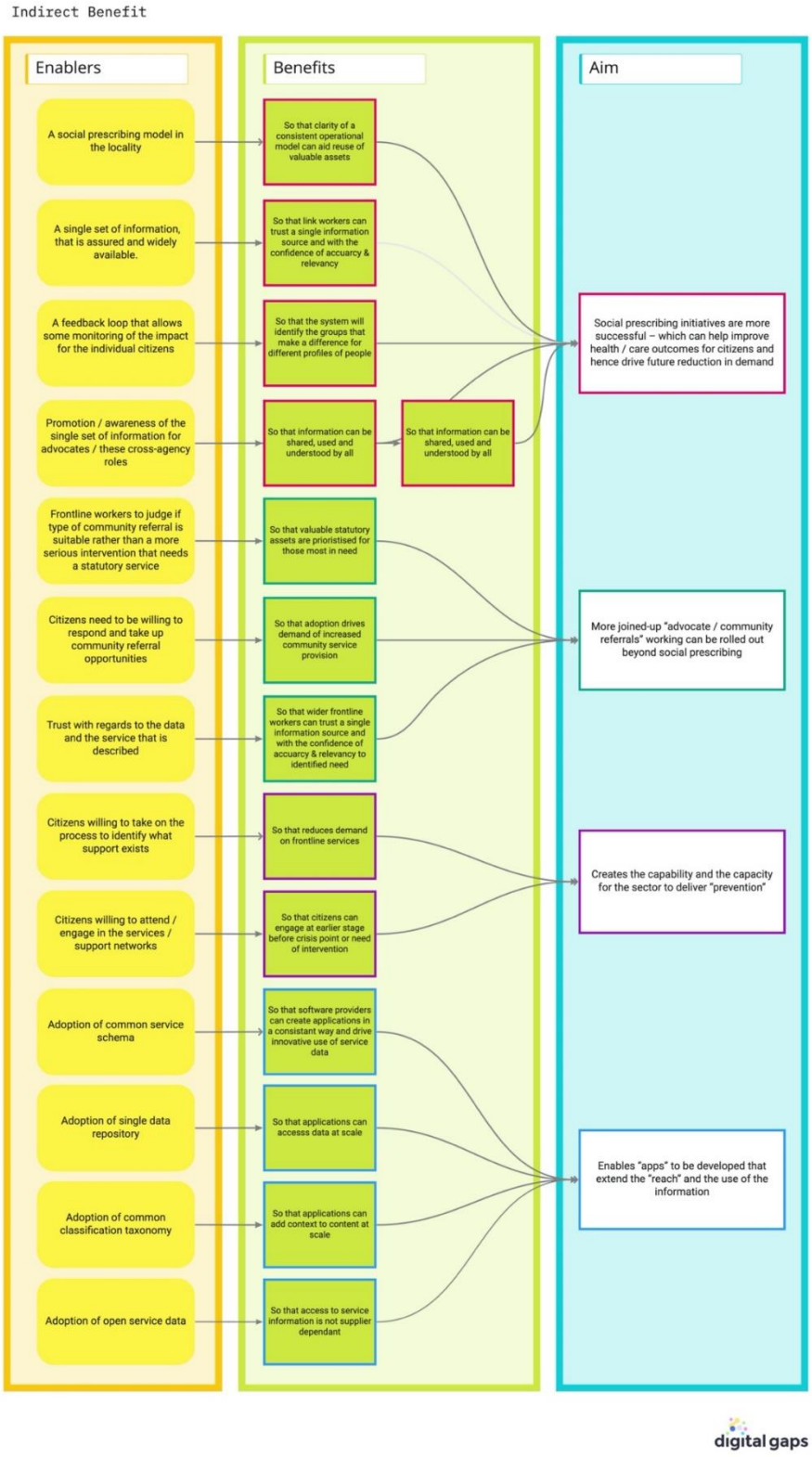
The direct benefits are the direct implications of the changes – in terms of having more accurate, more accessible and more trusted data.




digital gaps

## Indirect benefits

The indirect benefits are the broader opportunities that can be achieved once the data is in place. These are defined as indirect benefits as they will need other enablers in place; for example they will rely upon having a social prescribing model in place with the right resources and will need the identified local services to be effective and offering the necessary support.



## Implementation plan

There will need to be some significant time invested into research and understanding the issues and opportunities before the work can start. The following is a plan formulated based on experience of the pilots. It is not a definitive approach but should be used as a guide to your own place-based planning.

| Step | Task | Output | Effort | Skills | Risks to carrying out the task | Notes |
|---|---|---|---|---|---|---|
| **0.0** | *It is assumed that a senior figure will start this thinking as a prospective sponsor. Things may change as the first 5 steps are addressed. A project manager and analyst are required for 6 weeks or so to complete the first 5 steps. It is step 6 when a budget needs to be in place.* | This should be focussed on creating a new sustainable way of working rather than anything specific e.g. technical infrastructure or open data | At least 12 months to build momentum likely another 12 months oversight to get to a critical mass. | • Project manager<br>• Change manager<br>• Benefit manager<br>• Data manager<br>• [data] Business Analyst | There is a risk that you will focus too much on perfection. Build momentum and shape things as they move in the right general direction. | Software tools make a big difference to success. |
| | 0.1 Define your initial project team/resources. It is expected to use a project manager and analyst for approximately 6 weeks but this may not be full time. Main point is that someone is a responsible resource. | • Project manager<br>• Analyst | | • Project manager<br>• Business analyst | This is a new way of working/innovation and so could conclude after the research that here is no programme to run and hence the cost of the team at this stage is at risk. | You need to identify a strong people person that can persuade people to find ways to move to a new way of working and a problem solver that can think of ways around issues and barriers. |
| **1.0 Identify drivers** | *This is a new way of working and it won't necessarily be easy to drive the change. It is very useful to identify the drivers for taking this forward and aligning a champion or a project to them. When the issues and barriers arrive then the drive should find a way round/through them.* | | | | | *The pilots found this to be crucial. No one is interested in adopting an open data standard but they are interested in social prescribing* |
| | 1.1 Identify the aims/drivers for carrying out this programme. It is likely to be Tackling loneliness, Social Prescribing, Place working efficiency, implementing open community recommendations | Initial benefit map | ½ day | • Project manager<br>• Benefit manager | There is a risk that you will try to think of too many benefits. Focus on the key aims for now and complete the map in step 5. | This should be carried out with the prospective sponsor.<br>See example benefit map on page 49.<br>See references to each driver on page 8. |

| Step | Task | Output | Effort | Skills | Risks to carrying out the task | Notes |
|---|---|---|---|---|---|---|
| | 1.2 Identify an organisation and preferably a named person to act as a champion for each of the drivers. You can identify more than one champion for each driver. | Stakeholder table | ½ day | • Project manager<br>• Benefit manager | Don't think this through too much but make general guesses as the next step will test the thinking out. | Stakeholder list generally holds the names, organisations, benefits and issues/barriers that each has. |
| **2.0 Leadership** | *Success will depend on getting leaders on board from all sectors – Council, CCG, Prominent charities, CVS, Housing, Police, Fire* | | | | | *The pilots had leadership backing but this requires driving through and so champions is a better word than leaders.* |
| | 2.1 Identify a Project Champion/Sponsor. It is likely that this will need a budget and so the budget owner makes the obvious sponsor. The budget is ideally a contribution from the 6 named organisations. | Stakeholder table | ½ day | • Project manager | This needs to be someone of credibility and significance for them to have influence over other place partners | |
| | 2.2 Identify sector champions. Place-based working is difficult and requires a critical mass. The sponsor won't achieve this on their own. Suggestion is to identify a champion from at least 3 of third sector, CCG, council, police, housing and fire. | Stakeholder table | ½ day | • Project manager | Again the programme needs influencers from other place partners. Without these your programme will be at risk. | |
| **3.0 Measures of success** | *It's important to identify what you need from the project but to recognise that new ways of working take time to embed* | | | | | *Progress is the key word here rather than measures of success. Success is making sustainable progress.* |
| | 3.1 Identify the measures that can be easily measured and will indicate progress on each of the drivers/aims | Measures table | ½ day | • Business analyst | It is important to try to baseline all your measures otherwise it will be difficult to show progress. | Define how they are measured and ensure there is a resource to collate them |
| | 3.2 Collect and collate the measures. These should be sent to the champions to indicate progress and provide evidence for the champions to drive things forward. | Populated measures table | ½ day | • Business analyst | Risk is they will be ignored so aim for digestible infographics that focus on drivers. | Which measures are best might change until step 6 |
| **4.0 Planning & management** | *Plan how you are going to govern this project. It is important to keep the momentum with the champions but not frustrate them with bureaucracy.* | | | | | *Holding things together through one central project manager is critical to avoid silos creeping in. Preferable that the PM is not tied to one particular organisation.* |

| Step | Task | Output | Effort | Skills | Risks to carrying out the task | Notes |
|---|---|---|---|---|---|---|
| | 4.1 Identify an appropriate existing place based board to oversee the project. Ensure that there are at least two champions | Board agenda item | ½ day | • Project manager | There is a risk that this will drop of the agenda. Prepare updates as infographic slides and user stories. | |
| | 4.2 Provide a set of bullet points describing progress highlights, risks and next steps. | Highlight notes | 1 day a month | • Project manager | Risk here is they will be ignored make them just bullet points and within one page | |
| | 4.3 Run a regular virtual catch up e.g. hangouts. Set an agenda for discussion of progress, issues and risks. Don't worry about who turns up but encourage people to drop in to catch up. Keep it to 30 mins at same time each agreed day on 2nd and 4th week of month. | Agenda and notes | ½ day a month x 2 | • Project manager<br>• Business analyst | There is a risk that this will fall away. Project manager and sponsor should insist on keeping this up right to step 7 | |
| **5.0 Place research** | *Understanding the systems and people involved will allow the project to build on momentum and be wary of risks and issues* | | | | | *The pilot didn't have enough time to research properly but would suggest this is time well spent* |
| | 5.1 Map out the existing service data repositories. Use internet search to find repositories and make contact with each sector/organisation in the place. Meet with those in charge of repositories and capture the fields that they record. Understand motivations to move to new open data standard – unwilling, migration routine, change DB structure. | Diagram/lists | 6 days: based on finding 6 repositories | • Project or business analyst<br>• User research | You may miss some so inform all place organisations of your research on the council website with an email address to contact. People may be reluctant to give you the fields or say they don't know. Try to capture screen shots or print out services. | Each data table and its fields in the OpenReferral UK standard is given here: http://htmlpreview.github.io/?https://github.com/esd-org-uk/human-services/blob/master/Schemas/documentation.html<br><br>This information is embedded in the "Data Structure" section of the Guidance at https://openreferraluk.org/Guidance/ |
| | 5.2 Map out the need for local service information by frontline worker organisations. How do they get their service information currently? Do they have applications. Would they be prepared to capture local service information if it didn't detract them from their own job. Collate a list of existing applications that may want to use the data. | Diagram/lists | 10 days: based on 10 frontline organisations | • Project or business analyst<br>• User research | People may say they don't need the information as they have it already or workers gather it themselves. Note all this as they are wasting public resources by not sharing this data with others. | The pilots generally found that frontline workers noted service for themselves and colleagues and were happy to share what they found across the whole place. |

| Step | Task | Output | Effort | Skills | Risks to carrying out the task | Notes |
|---|---|---|---|---|---|---|
| | 5.3 Meet with existing frontline applications. Understand how they might be able to make use of the open APIs defined by LGA. Use this in 6.4 | Annotate or add to diagram/lists above | 3 days based on 3 or 4 applications | • Project manager | There is a risk that no one has an appetite to adopt new standards. Try to offer a migration routine. The LGA has made an open source app available and the OpenReferralUK has a list of complying systems. | See https://openreferraluk.org/ |
| | 5.4 Undertake more detailed baseline – focus on the data relating to three trial personas e.g. elderly, unemployed, mental health, learning disabilities and establish how many services are duplicated and the accuracy / currency of the information. | Represent in a diagram showing service, duplication, accuracy by persona/need. | 3 days | • Data analyst/visualiser | There is a risk of not spending enough time on this to get a realistic picture. | See personas in LGA user story report appendix C. This won't justify the project in its own right but will provide something to measure progress/success later. |
| | 5.5 Consider the aims/drivers and start to create a risk/issue log. Interviews with the organisations in 1.1 and 1.2 should provide risks and issues. | Risk/issue table | 1 day | • Project/risk manager | Risk is not in mitigating the risks or dealing with issues. Point is not to have a log but to take action to prevent the project failing. | |
| | 5.6 Business case. Focus on the drivers and build the benefits map. Use the research to show the potential efficiency savings and the indirect benefits that place partners could achieve. | Business case | 2 days | • Project manager<br>• Analyst | There is a risk that you depend on a strong business case before doing anything. Use the concept that it is a better way to work to start small and scale. | The business case is not going to be strong but should be enough to start to shape the current working to be more coherent and open to for partners to benefit. |
| **6.0 Project initiation** | *Having completed the research then an implementation plan should be devised and the champions agree to it and commit too resource it.* | | | | | *Pilots agreed this to be critical and sector champions being involved in the planning should significantly increase chance of success.* |
| | 6.1 Technology. Take each of the maturity model enablers and consider how technology could help. This may be using existing software with migration routines or procuring new software to prepare the open data. Or a combination. Present this at the workshop | Diagram | 1 day workshop with digital manager | • Project manager<br>• Business analyst<br>• Digital manager | Technology is the enabler and without it then this will be a bigger struggle. Start early, involve suppliers willing to work with you as the path is agile rather than well-trodden. | See supplier details below |
| | 6.2 Participants. Take the landscape diagram and identify the organisations best placed to | Diagram | 1 day workshop with champions | • Project manager<br>• Business analyst<br>• Champions | Participation is easily lost through issues, barriers and day jobs. Work with the | The roles are identified in the LGA maturity model |

| Step | Task | Output | Effort | Skills | Risks to carrying out the task | Notes |
|---|---|---|---|---|---|---|
| | adopt the roles and prove the end to end concept. Construct a diagram to show this. | | | | enthused and those who see the benefits. Build on existing momentum. If you have to persuade people then don't involve them at this stage. | |
| | 6.3 Scope. Perhaps focus on one neighbourhood or even a ward to prove the concept. Identify the existing data sources willing to move to the new model. Use the personas in 5.3 to ensure all services are collected. | Plan | 1 day workshop with champions | • Project manager<br>• Business analyst<br>• Champions | Depth of services is required so that one post code generates local services. The risk is you only get the easy pickings i.e. the statutory and commissioned rather than the hyper-local. | |
| | 6.4 Model. Define how each element of the maturity model is going to be delivered. This should be set out in a document that the place champions can sign up to.<br>- collect/maintain: empower frontline<br>- classify the data: coherent picture of supply & demand<br>- assure the data: ensure trust in data<br>- publish the data: provide APIs for consumers | Diagram<br>Place policy & procedures | 1 day workshop with champions | • Project manager<br>• Business analyst<br>• Champions | The most important task! Risk is that champions leave project manager to it. They need to be involved so that they can provide the drive and communications needed to make this happen in step 7. It will help with their understanding. | See maturity model in the LGA report |
| | 6.5, Exploiting the data. There isn't any point collecting the data unless you can find applications that will use it. Take the work from 5.3 and clarify their position and look at other possibilities. Check out the LGA opensource this could be adopted and refined to meet specific frontline needs identified in 5.2. | Diagram/lists | 2 days research and chatting with suppliers | • Business analyst | The risk here is that you don't have anyone consuming the data. This can't happen and so make sure there is sufficient use of the data to warrant setting up the preparation of the open data. You may need to encourage and support new applications. | See supplier appendix below |
| | 6.6, Develop a plan. The research and considerations will have provided enough information to form a plan to prove the concept. Ensure that technology is ready to be used and the scope is enough to | Plan | 1 day | • Project manager | Risk is that you become to agile. A plan is needed to provide a framework for tasks and timescales. A regular champions chat in step 4.3 will shape the plan as you progress. | Use this for a plan. See plan template in LGA report.<br>Report progress through highlights 4.2 |

| Step | Task | Output | Effort | Skills | Risks to carrying out the task | Notes |
|---|---|---|---|---|---|---|
| | prove the point but small enough to manage. Set a time period to run the trial e.g. 3 months. | | | | Technology being ready in time to use is always a risk. | |
| | 6.7 Establish the budget. Add costs to the plan to give an estimated budget. Discuss with the sponsor to agree the budget. | Budget | 1 day | • Project manager<br>• Sponsor | Risk is that budget is fixed to specific items as opposed to a project budget. Each item can work to the budget given but be good if any underspend could be via across to other items. | See the cost notes below |
| | 6.8 Resources. Identify willing organisations to fulfil the roles and populate the plan to prove the end to end concept. You may need to offer funding for the assurance especially for the initial migration. | Plan | ½ day | • Project manager<br>• Analyst | Big risk that you won't have the commitment of resources to assure the data to the timescales. Ensure that any funding is based on quarterly delivery. | See the cost notes below |
| | 6.9 Complete risk and issue log with mitigations | Risk/issue table | 1 day | • Project manager | | See the cost notes below |
| **7.0 Prove the concept to create open data** | *It is relatively easy to plan the implementation but day jobs and issues will be raised that need the project manager to continue to drive forward.* | | | | | *This should be relatively straight forward if step 6 is done well. However don't think with planning there won't be teething problems or issues to iron out.* |
| | 7.1 Run the plan and maintain step 4. This is a facilitation, co-ordination and barrier removing job for the project manager. Asking for highlights of progress will help keeping momentum going. | Highlight | 2 days a week over the pilot run so say 24 days | • Project manager | Technology and the day job will get in the way and so the project manager will have to keep making sure things don't drift too much. | |
| | 7.2 Review the previous steps as you progress to the new one. What is delivered into the new step will usually test the previous step. Learn as you progress. | Lessons learned<br>Amended Place policy & procedures | Included in 7.1 | • Project manager | The risk here is that you don't review and learn from the previous step. Once people get set in ways then it is difficult to change so start slow and review the process as you go. | |
| **8.0 Progress Review** | *This project is about starting small to prove the concept and then scaling to a critical mass. There has to be sprints of effort so after a year then review* | | | | | *Always worth reviewing the proof of concept and scale based on momentum rather than forcing anything.* |

| Step | Task | Output | Effort | Skills | Risks to carrying out the task | Notes |
|---|---|---|---|---|---|---|
| | *everything and change shape accordingly.* | | | | | |
| | 9.1 Repeat the scope for another area. Involve other organisations in the roles. | | | | | |

## Costs

Partners should recognise the costs that they may face. These costs are insignificant compared to the benefits that can be realised. The benefits come from:

- Better use of partner wide resources through collecting information once and sharing it between partners
- Some potential to rationalise software by sharing the capability
- Saving frontline workers time from researching their own information
- Providing a reliable set of information for people at risk of loneliness or health, care or other statutory services to self-serve and self-refer into local community activities and services
- Most importantly, ensuring that initiatives such as social prescribing are successful in identifying the most appropriate support and activities to keep people safe and well.

The experience from the pilots is that the following costs should be budgeted. Most of the costs will be “opportunity” costs which means that it is not an incremental cost, but about using existing resources to support this initiative (which means they can’t support something else with that time). The recommendation is that some costs are recognised as real or incremental costs to ensure that there is some shared commitment and some independence from individual partners.

| Cost | Description | Opportunity cost? | Budget |
|---|---|---|---|
| Project management | The project management is crucial for place-based working. Some of this may be from existing resources, but it is helpful sometimes to have some external independent resource for some elements of the role. This stage of the work includes the initial research to understand the current baseline and develop an initial plan / brief for the work.<br>The plans will vary according to ambition and momentum, but it is expected that this will be at least an 18 month programme. A project manager role with an analyst at £400 per day is suggested. Due to the need to facilitate and drive rather than do the work then this won't be a full-time position. An estimate is for 200 days on the assumption this is a fairly significant partnership (rather than a small District council for example). | Some internal and external costs | 50 days at £500 = £25,000<br><br>150 days of internal, but still shared resources at £500 per day = £75,000 |
| Collect, prepare and publish technology | This seems to be an area not covered by the current market. Existing repositories seem to focus on presenting the data rather than facilitating and supporting the process to collect and maintain the data. Bristol co-developed a new product to solve this. Hull requested improvements from their 'Directory of Service provider'. It is recommended to budget for £20k. Any spend should be for all organisations to use across the place. It is possible that some existing spend could be consolidated to pay for this as the place works together. | Incremental cost | £20,000 |
| Data migration | There will be a lot of existing data which will be worth migrating to the new standard. Code can be written to take what is already in place. If 6 data repositories existed then it is recommended to budget for £6000. | Incremental cost | £6000 |
| Collection and classification | It is not expected that any expenditure is needed here other than the technology to support the frontline to easily collect and maintain the data. | Opportunity cost | |

| | | | |
|---|---|---|---|
| Assurance | The move to a richer data set will need resourcing. The aim is for service providers to complete this and therefore there will not be a cost. However momentum for this way of working needs to be built and there will always be local services that will not update their information.<br>Bristol council have approximately 5000 with around 2500 providers. They estimate that 1/3 of services will be maintained by service providers,1/3 will need some monitoring and 1/3 will need the data maintained for them.<br>It is expected that some work will be needed to get Service providers on £7.50 per service.<br>The costs for monitoring a service provider might be £40.<br>The cost for maintaining a service could be £30.<br>Therefore for **1000 services with 500 providers the budget should be £.** This figure should diminish over time as more service providers maintain their own data including the hyper-local ones as demands for better technology ways to do this are met. | Opportunity cost – but may be more effort by some partners than others | £7.50 x 333 = £2,497<br>£40 x 166 = £6,640<br>£30 x 333 = £9,990<br><br>Totals: £19,127<br><br>Rounded to £20,000 |
| Publishing data | It is expected that the APIs to make data available will be included in the technology infrastructure for collecting and preparing the data. | | |
| Exploiting data | There is a need for applications to consume the open data and present it to the frontline. It is expected that social prescribing solutions will start to comply with the OpenReferralUK standard. Service directories and local offer/SEND will be interested. Self-care will start to become an area for applications to explore. There are American solutions that may start to target the UK. The LGA has offered a free open source service finder for places to use to test their model and get basic data from their APIs. | | |
| | Contingency | | £14,000 |
| **TOTAL** | | | **£150,000** |

## Issues, Barriers and Lessons

The following provides an exhaustive list of the issues, barriers and lessons learnt throughout the programme. These may be helpful as a guide or as a check for a local Project Manager to consider the challenges faced by others.

**Governance and leadership**

| Issues | Barriers | Lessons |
|---|---|---|
| Getting the attention of the 'place' senior managers | Lack of understanding of the problem / potential impact | • Undertake a baseline of accuracy of certain data sets to evidence the issue – include experiences of customers / users of the data<br>• Create a few clear slides to explain the problem and reason for engaging<br>• See example promotional videos at:<br>○ https://youtu.be/yHsIZhACSVc<br>○ https://vimeo.com/371446959<br>○ https://www.youtube.com/watch?edufilter=NULL&v=LzSbl1CBZOk |
| The 'place' needs a dedicated resource to drive new way of working as a team, those with a day job are too busy and those in management focus on their own organisation | Funding of a project management resource | • Link project on information to key local initiatives like social prescribing<br>• Consider a benefit map approach to evidence the role of different enablers<br>• Look at good practice projects internally – probably had project management resource<br>• An outside-in perspective will help overcome silo-based thinking |
| This programme needs some commitment of resources from partners in all roles to get things set | Spare capacity of those involved | • Link project on information to key local initiatives like social prescribing<br>• Consider a benefit map approach to evidence the role of different enablers |

| Issues | Barriers | Lessons |
|---|---|---|
| up, configured and tested - collection, classification and assurance. Perhaps a week's time over a quarter. | Lack of understanding of the problem | |
| Local leaders don't understand the issues related to and the value of accurate information. Leaders don't understand Open Data as a standard that can help underpin data that can be easily shared. | Lack of credible proven solutions | ● Engage locally with relevant suppliers to demonstrate commitment to the standard<br>● Lead organisations like MHCLG, GDS, DCMS, iStandUK, TechUK should promote Open Referral UK as the good practice to follow to give credibility and awareness raising to senior management across the place |
| Partners need to be more aware of the lack of reliable local service information available and the problems it causes their frontline workers as well as families e.g. social prescribing/self-care | Fear of creating latent demand that hyper-local services don't want or could cope with<br><br>Information not seen as critical to transformation | ● Allocate role for liaising with hyper-local services to have informal process for responding to their changing capacity |
| Local place-based leadership is complicated – in terms of having shared vision and outcomes | Organisations have their own brand and different visions, targets and measures | ● Robust baseline including customer experience helps create shared commitment<br>● Link the project on information to other critical initiatives |

**Collect and Maintain**

| Issues | Barriers | Lessons |
|---|---|---|
| Trust issues between partners working on behalf of the place and sharing information | Anxiety about protecting their own brands and having control over their own role / statutory obligations | ● Look at the opportunity for technology to support the process so that stand-alone agencies can maintain their own “branding” but publish information that is shared by the broader partnership<br>● Customers see information as ubiquitous; they want to be referred not signposted. Who supports them may be a choice for a citizen, but knowing what is available is a right for everyone |
| Collect and maintain processes can be time-consuming / inefficient so people unwilling to change behaviour and information continues to be inaccurate | Not well supported by software<br><br>Maintaining accurate information not recognised as important role<br><br>Collection seen as an administrative process and value of accurate information not understood | ● Understand technical infrastructure in place and consider options for closer working between existing software and engage with market for gaps in capability<br>● Recognise that can be more efficient if information is shared<br>● Get service providers to maintain their own service information to the Open Referral UK Standard |
| Open Data must not have any personal information – will not correspond to GDPR legislation | Some hyper-local services use their personal email or phone number as the main point of contact | ● Engage with stakeholders to build understanding of GDPR and the broader Open Referral UK standard and benefits<br>● Identify solutions to avoid use of personal information |

| Issues | Barriers | Lessons |
|---|---|---|
| Frustrations where front-line workers are requested to work differently, but the vision remains unclear | Software may not support the processes<br><br>Lack of project management to consider and plan the project | ● Detailed planning of the role and activity requested of stakeholders before implementation<br>● Frontline workers and other stakeholders happy to play a role in maintaining information, but needs to be simple and well-defined or it will not be implemented<br>● Need to dedicate resources to engage/train frontline workers to contribute to collection |
| Processes and approaches are very silo-orientated | Focus on “statutory role to have something in place” rather than looking at customer journey<br><br>Not well supported by software | ● Spend time with stakeholders to demonstrate that joined-up working can deliver against statutory duties (such as publishing The Local Offer for SEND under the Children and Families Act or Providing Information and Advice under the 2014 Care Act) and also deliver better output for consumers of the information<br>● Consider technology / software infrastructure – are there multiple systems providing the same function that can be purchased once rather than multiple times |
| Historical approach to collect and maintain is deeply ingrained | No vision and no statutory duty to have joined-up view of services available locally | ● Spend time with stakeholders getting buy-in and understanding<br>● Role of senior leadership |
| Anxiety to migrate from stand-alone directories to joined-up working that may be an unproven environment and model | No clear incentive to make things happen<br><br>New approaches not well-established / few examples | ● Spend time with stakeholders getting buy in and understanding<br>● Explore models for sharing costs for maintaining information - headline costs and exploration of options in section 5 below |

| Issues | Barriers | Lessons |
|---|---|---|
| No standard classification, so information cannot be aggregated and shared | No standard classification | ● Adopt the open referral data standard or define local approach to classification |
| Responsibility to maintain information not well enforced | Ownership of data not well understood | ● Identify owner and assure role for each data set<br>● Consider role of technology to support the processes |
| Migrating to data compliant with a new schema demands resource to include additional information | Lack of resource<br><br>Information not seen as a priority | ● Automated routines can help migration, for example mappings can be applied from local terminology to national standard vocabularies<br>● Firmly establish the benefit of more accurate and Open Referral UK compliant data |
| Current software unlikely to support efficient processes and may not sign up to the open referral data standard | Funding for software | ● Understand the costs and benefits<br>● Engage with current suppliers to consider options |

**Tag / Classify**

| Issues | Barriers | Lessons |
|---|---|---|
| Too many service-type terms for an individual to digest | Time and system to trial and understand | • Need to test data and an application to be able to show how it would work |
| Makes sense in theory but no-one sure whether it will work in practice | Not currently possible to easily demonstrate the model<br><br>No software currently using the model so cannot test in anger | • Need to group the terms into manageable chunks but this is left to software market rather than LGA terms<br>• Need to test the model with frontline workers |

| Issues | Barriers | Lessons |
|---|---|---|
| Difficult for existing software to change | Open Referral UK standard and the international standard and adoption may develop slowly. Suppliers unlikely to sign up and enforce standard at this stage unless all “buyers” request the standard | • Need to engage with supplier community to develop solutions |
| Separate classification schemes in separate directories | Gaining buy-in to working to a single classification scheme Limited evidence and models of working to single scheme | • Working with people to understand the bigger picture |

**Assure data quality**

| Issues | Barriers | Lessons |
|---|---|---|
| Takes time and effort and therefore payment required | Resource is tied up as small pockets of efforts and cannot be released to become a funding stream | • Upfront about this to allow rich conversation from the outset |
| Some frontline workers do it as part of their job so why should another organisation get paid for this. | Different approaches to commissioned services<br><br>Not working as a partnership so people distrusting of others | • Place needs to have an assurance policy and processes agreed |

| Issues | Barriers | Lessons |
|---|---|---|
| GDPR - No personal data can be added | Many services may include personal information so significant change to change this culture | • Identify and engage early – or plan migration path over longer period of time<br>• Explain to hyper-local services that they should not use personal contact details for their services |
| Agreement on who the assurer should be for each service and to what level | No forum or process will exist for looking at each data item and agreeing approach to assurance | • Allocate either based on location (organisation A to assure data items in location A and B) OR allocate based on service type (organisation A to assure all data that relates to “housing” for example). |
| Agreement on any model to fund increased investment by certain agencies to support improved collect, maintain and assurance rigour | Hyper local services can change frequently and significantly so assuring and updating may be significant effort | • Promote wherever possible that service providers assure their own information<br>• Maximise the use of technology to simplify all maintain and assure processes |
| Migrating data is a significant effort at outset | Where is the resource for this | • Early identification<br>• Recognise that to everyone’s benefit<br>• Consider early on if there are models for automating this migration |

**Publish Open Data**

| Issues | Barriers | Lessons |
|---|---|---|
| How is assurance ultimately monitored and enforced - how do we ensure the data can be trusted? | Silo mentality means that people will quickly move back to their own lists if data becomes inaccurate | ● Need to create culture and process for people to feedback on inaccuracies<br>● Need culture to enforce accurate information from service providers contractually |
| Software suppliers anxious about Open Data and allowing data to be seen as separate from the function of the software | Software suppliers have some significant influence with regards to maintaining up to date API links | ● Engagement and explanations needed with software suppliers outside the pilot<br>● Accept that it may take a long time for culture to become embedded |
| Individual data records vary in the depth of information | No control, standard or monitoring of the accuracy and specifics of the information | ● Identify any mandatory fields |
| No strong drivers for Open Data - in terms of software to use / consume the output | No pressure exerted on suppliers to adopt Open Data standards. Not clear where the momentum and drive will come from<br><br>Suppliers face costs to develop API links - commercial driver not yet clear for them | ● Councils need to contract that data is published by suppliers<br>● Councils need to ensure that the data they collect is accurate<br>● Market needs to be stimulated with other users of the information |
| Open UK Standard may continue to evolve | Suppliers may be unwilling to develop API and other development until the standard is stable | ● Engage with supplier community and resolve Governance for the standard |

**Exploit the Open Data**

| Issues | Barriers | Lessons |
|---|---|---|
| No strong drivers / processes exist to exploit the published Open Data | Open Data is not well and widely understood and hence there is no development of new channels / apps<br><br>The information is often inaccurate and hence solutions to consume the data are not being developed | ● Focus on one small set of information (like Dementia or Learning Disability) - to allow visibility of change in accuracy of information<br>● Make sure processes exist internally to create accurate data before promoting Open Data to stakeholders<br>● Engage with the market |
| Open Data not widely understood | Accurate information not seen and promoted as critical | Recognise accurate data as critical element of digital transformation<br>Identify key initiatives, like social prescribing that rely on accurate information |
| Appetite in the community for accurate information may be high, but trust / belief in the information is low | Brand / perception of information within communities may not be very strong | Need to have a focus on the external communication as well |

**Technical platform**

| Issues | Barriers | Lessons |
|---|---|---|
| Data and software not recognised as being two separate items | No standards to allow information to be shared | ● Standards allow information to be shared<br>● Standards will help shape the market towards separating data from software capability |
| Processes for capture, maintenance and assurance are very manual | Software does not focus on back-end, but more targeted at publication | ● Engage with the market to look at options for more automated / software supported processes |
| Customer journey is poor - multiple separate repositories and language | Focus is on “having a Directory” rather than accuracy and use of that information | ● Develop good understanding of customer experience and value of more accurate data |

# APPENDIX B - Suppliers Involved

The following eight organisations have developed their products based on Open Referral UK. A list of all the companies that have engaged with this programme around Open Referral UK are listed in a table below.

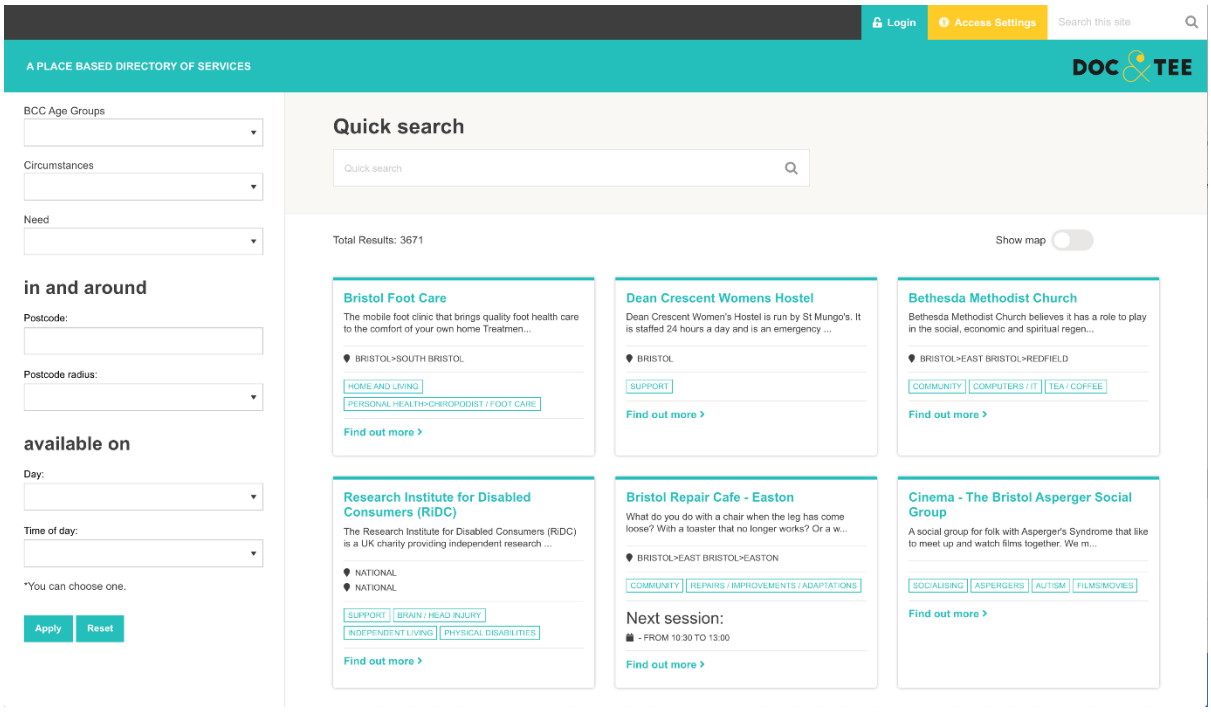
## Doc & Tee

http://www.docandtee.com/

Our strength lies in offering a consultative and hands on service with a focus on understanding the needs of our clients and working closely with them to ensure their brands communicate and grow.

Product: **Place Based Directory of Services (PBDoS)**

PBDoS is a fast and lightweight web application developed by Doc & Tee that can be easily be configured to interrogate any API endpoints adhering to the Open Referral standards. The application enables a user to find useful services based on their users' needs and circumstances as well as other parameters such as location and the time and days of availability. Designed with a mobile-first approach, the PBDoS app is responsive and works beautifully on any device and screen size. It has also been built to integrate with popular website CMS technologies (like Wordpress or Drupal). This means it can easily be added to an existing website or deployed as a stand-alone application. Integrating with an existing CMS allows the app greater functionality such as enabling users to create favourite lists and lists of saved searches. Additional features also include the ability to add service sessions to a calendar and download a pdf version of any service. The PBDoS app integrates with Google analytics, enabling the use of visitor statistics and tracking, and can generate xml sitemaps of services to be submitted to Google Search Console for indexing.



## Vidavia

https://www.vidavia.com/

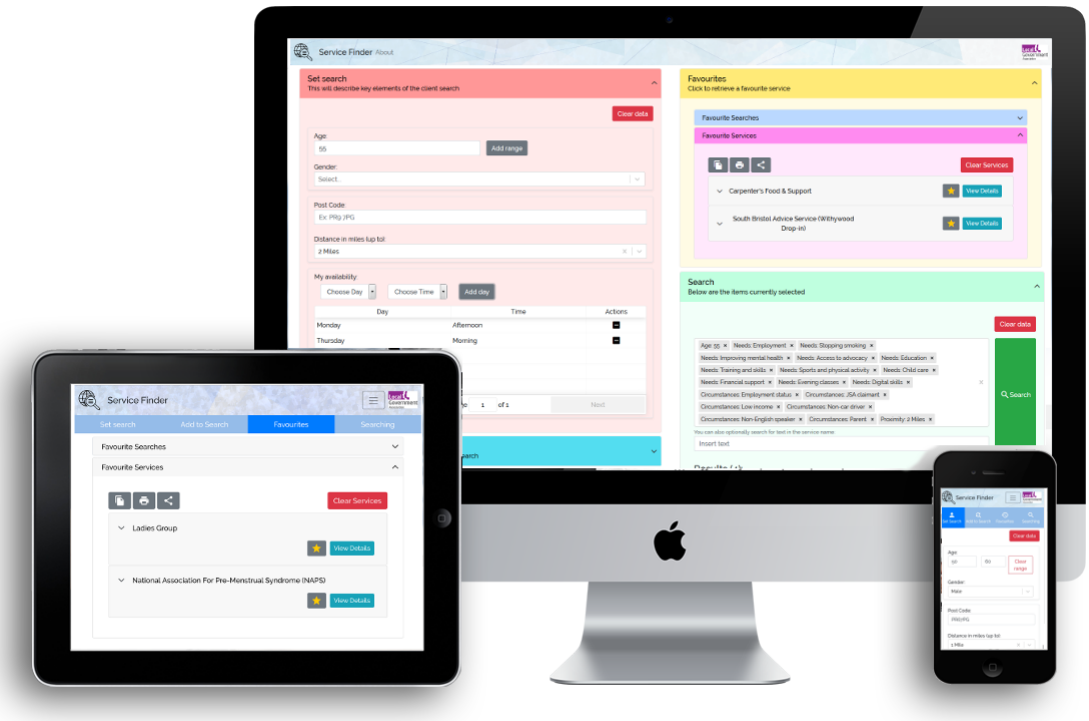
We're Vidavia. We are a fearless, innovative technology company. We love a challenge. We love to develop long term partnerships. We love to succeed.

Product: **Service Finder**

Service Finder[25] is an open source demonstrator of the sort of queries that a frontline worker may want to use on the open referral data - proximity search, need or circumstance search, search through questions, persona search and keyword search. It makes use of the range of open APIs provided by the LGA and will work on any Open Referral UK endpoint. It is currently in use by Blackburn, Bristol and Elmbridge councils. This is intended for the pilots to have a go with the various features and to test the rich data set that they have collected. Each council can adopt the open source themselves and amend as they require.

Vidavia are building (release in Summer 2020) on elements of the demonstrator to develop a native app (iOS and Android) focused on a frontline worker with a client case load looking to create a local service support package for each client. The app will work with or without internet access (phone signal). This will also include understanding service capacity which is not yet part of open referral but is considered important by frontline workers.

More info here: https://www.vidavia.com/servicefinder/




[25] Service Finder demonstrator: https://tools.openreferraluk.org/ServiceFinder/ Source code: https://github.com/OpenReferralUK/ServiceFinder

## Public Consulting Group (PCG)

http://www.publicconsultinggroup.co.uk/

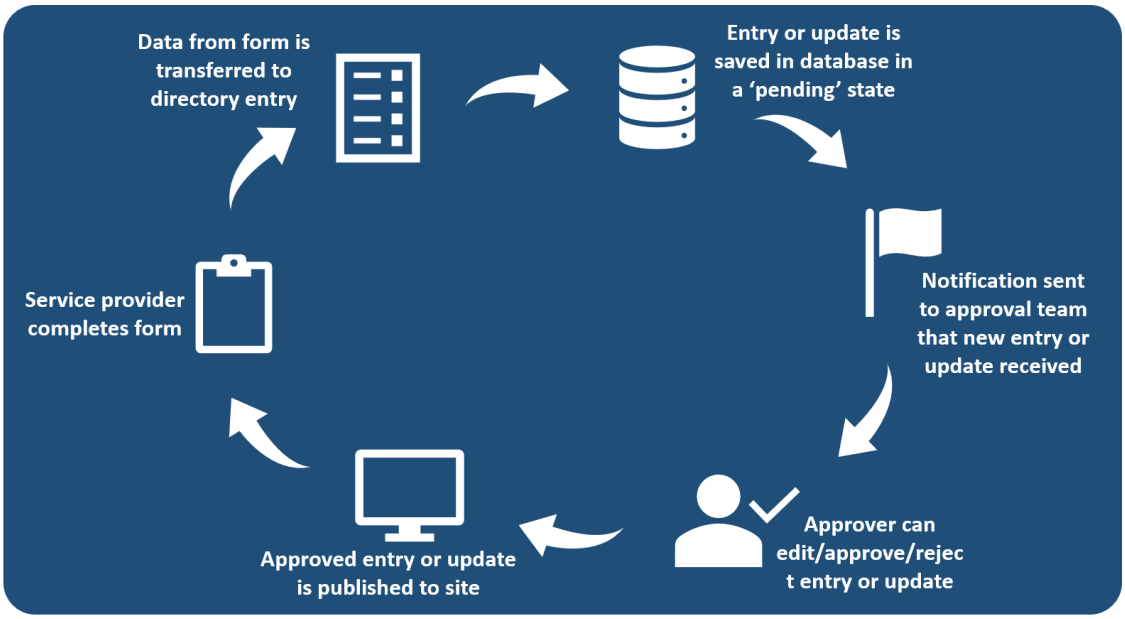
Public Consulting Group (PCG) provides industry-leading technology and consultancy services to public sector organisations helping them to implement solutions that lead to improved outcomes for those they serve.

Product: **ASSIST social care platform**

Public Consulting Group (PCG) act as the delivery partner for a regional web-based information, advice and guidance solution utilised by several local authorities, including Hull City Council. PCG and Hull have partnered to implement a services directory for Hull, using PCG's ASSIST social care platform. The solution collects service information via an online form, then inputs the data into a directory template. At this point, automatic notifications are sent to Hull City Council's designated approval team, who log into the administration portal on ASSIST where the 'pending' listings can be reviewed then approved or rejected in one click. On approval, the listing is published to the live directory page and made available via an open API, which PCG have built using the agreed LGA schema.

A key issue facing directories is the integrity of the data they hold. ASSIST's 'Suggest a Change' function on Hull's service directory allows service providers to update their listing at any time using a simple form. The updates from this form are captured in a 'pending' state within ASSIST for the approval team to edit, approve or reject.

PCG have implemented directory-type solutions with over 50 different local authorities. Whilst approaches and models are shared between local authorities, it is always difficult to reach consensus on 'best practice'. The methodology developed by the LGA is based on extensive input from partners and users, and has resulted in considered, structured and replicable standards that can be applied across the sector. PCG plan to promote the Open Referral model as the default to new PCG clients and to offer it as a migration option to our existing 40+ local authority clients.



# Placecube

https://www.placecube.com/

We make it simpler for you to create services, integrate systems and personalise user experiences with Digital Place, the open platform that makes your digital journey easier, faster and better connected.

Product: **Open Place Directory (OPD)**

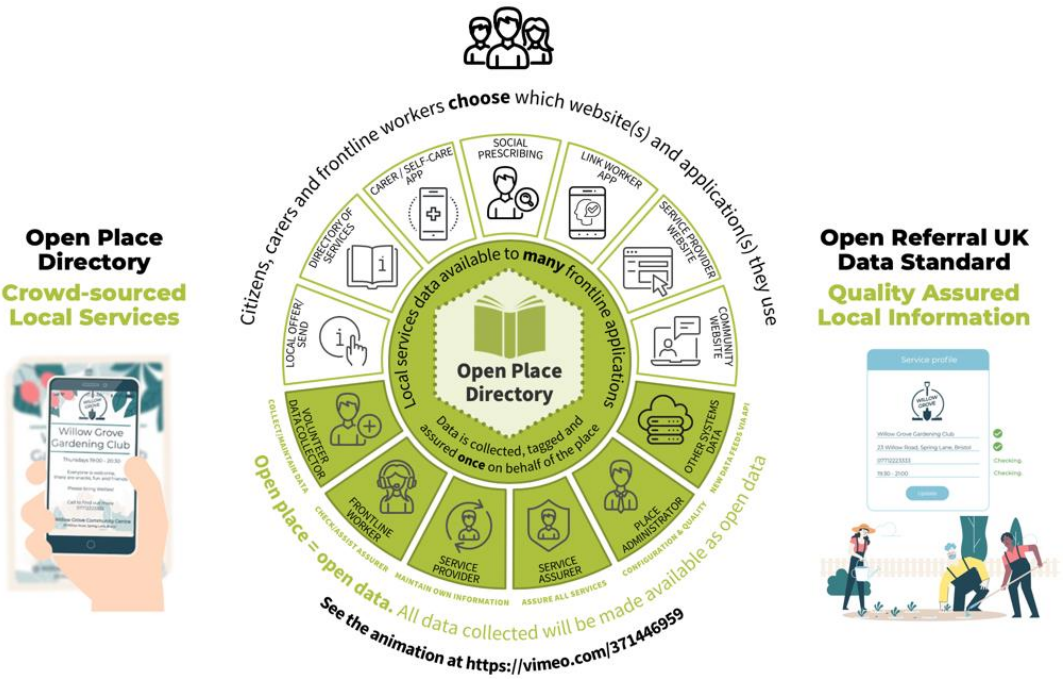
Every local authority, health organisation, police force and voluntary sector service provider maintains some form of local directory of information, with massive duplication of effort. With a variety of different local directories, each designed differently, the quality of this data is hard to trust and impossible to exchange.

Placecube's Open Place Directory platform makes it simple to capture, classify, assure and publish data once, and share it across the whole place, removing duplication and inaccuracies. Now you can engage the crowd across your place, enabling local users to capture, publish and update data about their local community services.

With Open Place Directory you can easily create any number of directories of local services with its interoperable Open Referral UK data standard and consistent workflow-driven approach to classify, assure and feed open services data into your frontline applications. Provide faster support for social prescribing and other local initiatives. And make it easier for service providers and volunteers to submit and maintain their records online, in a single trusted open place.

With Open Place Directory, it's much easier to find local services using one source of consistent local data that's quality assured, easy to access and far more efficient to collect, manage and keep up-to-date.

Find out more at www.placecube.com/openplace/



## North Yorkshire County Council

https://northyorkshireconnect.org.uk

As an innovative organisation, North Yorkshire County Council continues to push boundaries in terms of digital development at a LA level. Our in-house development team use open source technologies to build and maintain our key products which support the customer journey. This includes our: Transactional Portal (citizens and commercial); Corporate website (including districts and partners); Chatbot technologies; and our community directory, North Yorkshire Connect.

Product: **North Yorkshire Connect (web based)**

Our product offer, North Yorkshire Connect (NYConnect), is more than a front-end search tool, what we can offer other authorities is all, or elements of, the overall infrastructure.

We have a front-end which has the ability for users to search by category or specific criteria. Our data entry section is intuitive and enables data owners to easily enter and maintain their organisation's details. We have a bulk import function which allows trusted partners to import information into the database using APIs. An admin function enables the authority to manage entries and approve where required, in addition to the ability to set time out rules to ensure entries are up to date.

Furthermore, behind the scenes we have components which deal with management of data, search functionality (through elastic search) and bulk import direct into the database. All of which are managed through APIs.

From the very start we set out to be aligned to the work the LGA are doing and the product is built using the recommended schema. We are already using API tools to export the data onto our open data platform and are confident we can continue to align with the standards set by the LGA.

We are looking for any new relationships to be more of a partnership, working closely to agree a roadmap of future development to benefit all.

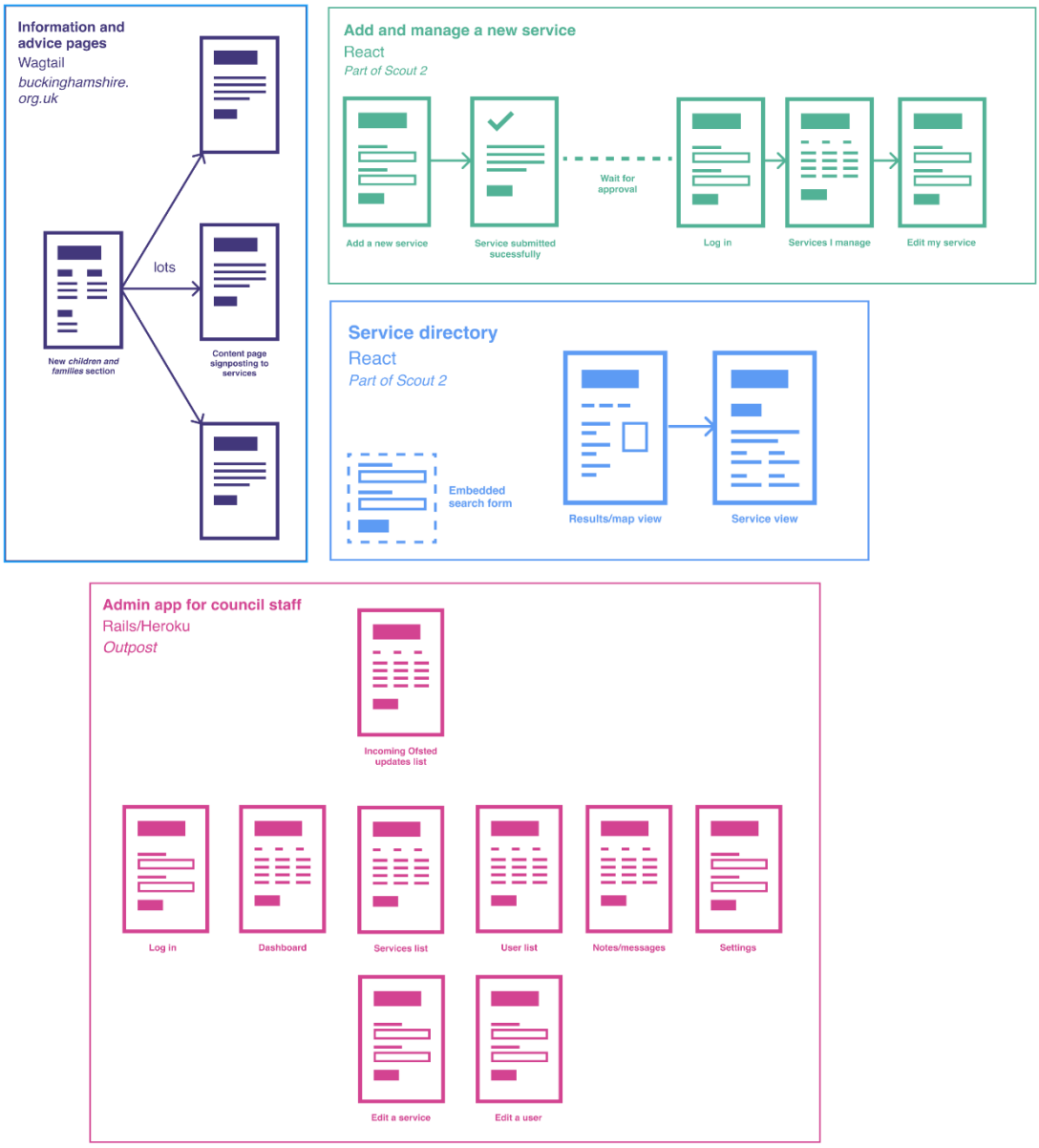
## FutureGov

https://www.wearefuturegov.com/

We reform health and public services by supporting organisations through digital transformation and service design. We believe in the power of 21st-century organisations to deliver the highest quality, citizen-centred services that have a lasting impact for all.

Product: **Outpost (Bucks FIS)**

FutureGov are building the new family information service for Buckinghamshire County Council. We are replacing their current system (Open Objects) with a new, custom built admin tool, an open API & a public-facing front-end application for users to find local childcare and SEND services. Using the OpenReferral UK data standard, we will be creating a new database schema and then migrating the current database over to it. We will then be building a standard-compliant open API on top of it so that the data can be accessed. Applying the data standard will enable Buckinghamshire's service data to be programmatically read alongside other similar service directory endpoints, that will also be in the same format. This will open up many possibilities for innovation within the sector.


Information and advice pages
Wagtail
buckinghamshire.org.uk
lots
New children and families section
Content page signposting to services
Add and manage a new service
React
Part of Scout 2
Add a new service
Service submitted sucessfully
Wait for approval
Log in
Services I manage
Edit my service
Service directory
React
Part of Scout 2
Embedded search form
Results/map view
Service view
Admin app for council staff
Rails/Heroku
Outpost
Incoming Ofsted updates list
Log in
Dashboard
Services list
User list
Notes/messages
Settings
Edit a service
Edit a user

## Famiio

https://famiio.com/

Famiio is a GovTech start-up established by two former local authority Family Information Managers, who saw a need for better technology solutions in local government family information delivery. From their experience in developing local government information systems and aggregating information at a national level, the company was created to deliver the vision of an interoperable platform that would work for all stakeholders in the family service information ecosystem.

Product: **Famiio Platform**

The Famiio platform is a modern local government marketplace for flexible Childcare and Family Services. This ecosystem will provide an easy-to-use online resource for parents, practitioners and service providers to find and manage trustworthy information on family services wherever they are in the UK. Famiio will deliver both a comprehensive source of trusted, high-quality data and a flexible and useful channel for accessing this information, particularly in the way parents need it. It will also deliver significant value to local authorities, multi-agencies, service providers and others, who can benefit from a shared, accurate dataset. This can easily be applied to different agendas, including social isolation and loneliness, volunteering, SEND, and even flexible emergency information in a changing service landscape, such as we find ourselves in today.

The platform is currently in development to comply with OpenReferral UK standards, legislation and guidance, and other regulatory requirements. Utilising the Open Referral UK Data Standards as the core of its more granular data schema, Famiio seeks to ensure subsequent open data is readily available to the widest range of third parties, in line with the national strategy of the LGA, DCMS and LocalDigital (MHCLG). The Famiio solution aligns closely with DCMS's own priorities and objectives, both domestic and international, and if used at scale could realise an estimated cost-saving of up to £160 million across the UK and beyond.

See https://famiio.com/latest

# The Orb

www.orbuniverse.com

ORB is a digital platform and environment accessed by End Users via an App and a Web Portal for providers of digital services, it has been designed and created over the last 4 years in collaboration with multiple public sector bodies and individuals, all with the same objective, to empower people through digital enablement.

Product name: **Orb**

ORB is an application that will be made available for people to download and use for free, an individual will have the ability to personalise their ORB for their own specific needs by adding or removing Apps or Websites relevant to them,  this includes any service finder Apps or Websites made available locally or nationally.

In addition ORB will include an in-App service finder which will be simple and easy to use, an end user  will be able to go through a series of questions and filters to produce relevant results to meet their needs, the ORB app will enable any DoS to be plugged in via an API.

## Other engaged organisations

The table below gives details of all the supplier organisations that have engaged with the LGA Loneliness Programme:

| Organisation | Assoc organisation |
|---|---|
| Placecube | Blackburn with Darwen |
| North Yorks | North Yorkshire |
| Rethink | Rethink |
| Famiio | Famiio |
| Global Initiative | Blackburn with Darwen |
| Doc & Tee | Bristol |
| Abavus | Blackburn with Darwen |
| Sarapis | Sarapis |
| 87 Percent | 87 Percent |
| FutureGov | Buvkinghamshire |
| Famiio | Famiio |
| Open Objects | Open Objects |
| OpenReferral | OpenReferral (United States) |
| DigitalGaps | DigitalGaps |
| Public Consulting Group | Hull |
| Elemental Software | Lancashire NHS |
| IEG4 | Lancashire |
| Vidavia | Local Government Association |
| Sitekit | Blackburn with Darwen and Bristol |
| IMIN | Hackney |
| Bronze Software Labs Ltd | Dorset |
| PCG | Hull |
| Open Data Services | Open Data Services |
| Citizen ORB | Lancashire |
| Rethink | Rethink |
| Sitekit | Lancashire NHS |
| Sirona | Bristol |
| Simply Connects Solutions | Simply Connects Solutions |
| Ayup | Kingston |
| Refernet | Refernet |

# APPENDIX C – User's Stories and beneficiaries

To accompany this report is a separate document which contains a series of "user stories" where we interviewed partners and beneficiaries of this new way of working to assess the potential for the improvements that will be made to people's lives. See here: http://e-sd.org/VdVca/ (pdf format)

V1.0



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