1. Understand user needs. Research to develop deep knowledge of who the service users are and what that means for the design of the service.

2. Ensure a suitably skilled, sustainable multidisciplinary team, led by a senior service manager with decision making responsibility, can design, build and improve the service.


4. Build a service that can be iterated and improved in response to user need and make sure you have the capacity, resources and technical flexibility to do so.

5. Evaluate what tools and systems will be used to build, host, operate and measure the service, and how to procure them, looking to reuse existing technologies where possible.

6. Evaluate what user data and information the digital service will be providing or storing and address the security level, legal responsibilities, privacy issues and risks associated with the service.

7. Use open standards, existing authoritative data and registers, and where possible make source code and service data open and reusable under appropriate licenses.

8. Be able to test the end-to-end service in an environment similar to that of the live version, including all common browsers and devices.

9. Make a plan for the event of the digital service being taken temporarily offline, and regularly test.

10. Make sure that the service is simple enough that users succeed first time unaided.

11. Build a service consistent with the user experience of government digital services, including using common government platforms and the Government Service Manual design patterns.

12. Encourage maximum usage of the digital service (with assisted digital support if required).

13. Identify performance indicators for the service, incorporating existing indicators and publishing to a performance platform, if appropriate.

14. Put a process in place for ongoing user research, usability testing to continuously seek feedback from users, and collection of performance data to inform future improvement to the service.

15. Test the service from beginning to end with appropriate council member or senior manager responsible for it.
The purpose of this point is to make sure the service is designed around the needs of those who use it.

The team creating the service should have a good understanding of user needs that has come from observing and engaging with end users, understand what users are trying to do when they engage with the current service (the user context, whether currently digital or not) and they understand the user needs - not just functional requirements - that the service will have to achieve in order to be successful.

There are many ways to achieve this and they are documented in the learning user needs section of the Government Service Design Manual.

Ensure a suitably skilled, sustainable multidisciplinary team, led by a senior service manager with decision making responsibility, can design, build and improve the service.

The purpose of this point is to ensure that the team designing the digital service has the right complementary skills, experience and support from senior management in order to be successful.

The team should be empowered to design a service that meets users’ needs; should share best practice and ensure that all viewpoints are taken into consideration throughout the design, build, implementation and improvement of the service post go-live. The size and expertise of the team and the roles required during the development of the service should be flexible during each phase, but must always include the service manager who will run the service on a day to day basis.

Further information about establishing and managing a team can be found in the team section of the Government Service Design Manual.

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1 https://www.gov.uk/service-manual/user-centred-design/user-needs
2 https://www.gov.uk/service-manual
3 https://www.gov.uk/service-manual/the-team
4 https://www.gov.uk/service-manual
The purpose of this point is to make sure the Agile approach to project management is used to build and implement digital services. Agile approaches are very different from the Waterfall methods traditionally used by councils for software development.

With Waterfall the desired solution for each project is defined from the start, whereas with Agile the desired outcome for each project is defined from the start but the solution is discovered through user research, prototyping and user testing. The speed of delivery comes from working progressively and collaboratively with users during the project.

A discovery phase doesn’t always lead to an alpha phase, or a digital service. A [good example of not delivering a digital service](https://digitaldwp.blog.gov.uk/2016/01/21/build-better-services-not-just-digital-services/) is where the discovery phase of a DWP project was used to improve their telephone service based on user need.

Very often your discovery phase will conclude that a digital redesign is the better, cheaper way to deliver a service, but your project should focus on service improvement, not digital.

Once live, the service needs to be able to respond quickly to changes in policy, technology and the needs of the public. The Agile methods used to create the service also enable change arising from user feedback, new technology and other requirements to be implemented quickly and in a collaborative way.

Further information about how services can be iterated and improved in response to user need can be found in the [live phase section](https://www.gov.uk/service-manual/phases/live.html) of the Government Service Design Manual.
The purpose of this point is to make sure that thought is given to the most suitable tools and systems used to develop, operate and measure the service.

As technology develops so quickly it is important that the tools and systems chosen are future-proofed, flexible and scalable enough to not only meet current requirements and demands, but also anticipate future requirements and demands. Thought should be given to ensuring that systems can handle peaks in demand, be they seasonal or specific event driven.

The technologies chosen should be the best fit based on the requirements of the user/service and offer the best value for money. Consideration should be given to the technology and architecture already in place, looking to re-use existing technologies where possible. Insight should be gained from other organisations that are running similar services to see if common technology can be used or services/technology shared.

There are some further guidelines to help in choosing technology in the Government Service Design Manual.

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Evaluate what tools and systems will be used to build, host, operate and measure the service, and how to procure them, looking to reuse existing technologies where possible.

The purpose of this point is to evaluate what user data and information the digital service will be providing or storing and address the security level, legal responsibilities, privacy issues and risks associated with the service.

Legally you must comply with The Data Protection Act which details how data can be gathered, used and stored. Key considerations are to only collect what data you need and to ensure that any data hosted on the cloud is not transferred outside the European Economic Area without adequate protection.

If you are changing the way you process or store user data you should complete a Privacy Impact Assessment which will highlight the risks and mitigation. Your data governance team should have a process in place for this. More guidance is available within the ICO PIA Code of Practice.

You need to consider what security measures are in place for both physical (site) security as well as digital, including encryption and password management. Cloud computing is not necessarily less secure than on-premise. If your organisation is Public Services Network accredited you will need to ensure that your network and infrastructure continue to stay compliant.

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8 https://www.gov.uk/service-manual/technology/choosing-technology-an-introduction
9 https://www.gov.uk/service-manual
11 https://www.gov.uk/eu-eea
13 https://www.gov.uk/government/groups/public-services-network#who-we-are
Use open standards, existing authoritative data and registers, and, where possible, make source code and service data open and reusable under appropriate licenses.

The purpose of this point is to ensure that open standards are used and where possible make source code and service data open and reusable.

Open standards and open source are not the same thing.

What are open standards?

The definition of an open standard in Wikipedia is as follows:

An open standard is a standard that is publicly available and has various rights to use associated with it, and may also have various properties of how it was designed (e.g. open process). There is no single definition and interpretations vary with usage.

The process of maintaining an Open standard is described in the GDS design manual\(^\text{14}\) as follows:

The standard is maintained by working together in a decision-making process that is consensus-based and independent of any individual supplier. Involvement in the development and maintenance of the standard is accessible to all interested parties.

Why should we have open standards?

At World Standards Day, 14 October 2003, EU Commissioner Erkki Liikanen said:

“Open standards are important to help create interoperable and affordable solutions for everybody. They also promote competition by setting up a technical playing field that is level to all market players. This means lower costs for enterprises and, ultimately, the consumer.”

W3C Director Sir Tim Berners-Lee has said:

“The decision to make the Web an open system was necessary for it to be universal. You can’t propose that something be a universal space and at the same time keep control of it.”

Where can I find open standards?

standards.data.gov.uk\(^\text{15}\) provides a list of standards related to government, whilst schema.org\(^\text{16}\) contains more general schema for structured data on the Internet.

W3C standards\(^\text{17}\) define an Open Web Platform for application development which can be used as a foundation for the architecture and design choices of the digital service.

\(^\text{15}\) http://standards.data.gov.uk/
\(^\text{16}\) http://schema.org/
\(^\text{17}\) https://www.w3.org/standards/
W3C also defines accessibility standards which are hugely important to ensure that the service you create is usable for all.

The Local Government Digital Content Standard[^18] is a guide for local government on how to write digital content.

### What is open source?

Open source can be defined as:

> Software for which the original source code is made freely available and may be redistributed and modified.

If you’re looking to create and deliver a new digital service, the best place to start is finding someone who has already made it and is willing to share the code. The GDS Design Manual[^19] details the government’s intentions to use more open source software rather than proprietary bought-in solutions.

All datasets must be registered at [data.gov.uk][^20] unless there are exceptional circumstances (such as heavily redacted personal data which would be unusable). This will provide a national picture on this data and enable comparison between local authorities.

By using and making software open source you’re enabling the efficient reuse of code and can benefit from other professionals suggesting code changes to improve the service.

Open source software is often free, and for widely used products such as Umbraco[^21], Drupal[^22] or Wordpress[^23] there are many suppliers who offer a support service. Another advantage over proprietary software is that you are not tied into one vendor to support the service. It’s also easier to recruit and train in-house staff with widely used open source software.

The LocalGov Digital guide on [How to Share Stuff][^24] provides more detail on how and why to share open source code.

[^20]: http://data.gov.uk
[^21]: https://umbraco.com/download/
[^22]: http://www.drupal.org.uk/
[^23]: https://en-gb.wordpress.org/
Be able to test the end-to-end service in an environment similar to that of the live version, including all common browsers and devices.

The purpose of this point is to make sure that the service can be tested in an environment that is a close replica of the live environment, not only during development but throughout the life of the service. This is particularly important where the service relies on integrations to other systems or data registers.

As services will be part of a continual improvement review, it is important to be able to test changes. This will also help with troubleshooting any issues that may occur in the live environment.

Infrastructure environments should be constructed in such a way as to allow for controlled development, unit testing and integration testing to take place ahead of service release and go-live.

In a self-service environment, where the end user devices will be many and varied, it is important that the service is tested on the devices and internet browsers that we know are in use within the user base. This will require some analysis of current user behaviour to determine the device and browser types in use. Where integrations to systems or data registers are included, data protection considerations should be given to the types of data that may be accessed from a test environment. Where required, a risk assessment should be undertaken.

Make a plan for the event of the digital service being taken temporarily offline, and regularly test.

The purpose of this point is to endure there is a plan in place for the following types of offline situations:
• Scheduled - when routine maintenance or upgrades are taking place
• Unscheduled - when an unexpected outage has occurred.

You should make a plan for the event of the digital service being taken temporarily offline. This plan needs to handle scheduled updates as well as database, network and server errors. The plan needs to include roles and responsibilities of staff as well as the technical recovery processes and priorities. It is possible you will need to recover from a previous backup and there may be data loss. It should be considered that other channels such as telephones will experience an increase in volume when the service is down. A communications plan must be included to inform the users as well as support staff.

You should plan and carry out regular tests of the service to check any resilience or redirection capabilities are operating correctly and ensure the user experience is as expected.

It is important to design in the right level of resilience and system availability for your users. This could mean you need it to be available 24 hours a day and 365 days a year.

To achieve the level of uptime you need involves good planning and design. You should consider how transactions in-flight are handled during an unscheduled outage and ensure you have appropriate commitment control in place to minimise data corruption.

There is some helpful guidance on this in the Uptime and availability: keeping your service online25 section of the Government Service Design Manual26

25 https://www.gov.uk/service-manual/technology/uptime-and-availability-keeping-your-service-online
26 https://www.gov.uk/service-manual
Make sure that the service is simple enough that users succeed first time unaided.

Users of local government services have a wide range of differing digital skills and competencies, for example, they may be able to use a tablet, but have never used a mouse/keyboard combination.

Services need to be designed, developed and tested, to reduce confusion for the user and make the journey as intuitive as possible. **Point 1 of the standard** sets out how the service should be designed focussed on the user. Exploratory testing - using the service as a user would, without a script to test a predetermined outcome - should be performed.

Only the information needed for the service to be provided successfully should be captured from the user. This should reduce the need for follow-up correspondence.

User and accessibility testing should take place throughout the process to ensure the service is as inclusive as possible. Making your service accessible for those with the highest needs tends to make it easier to use for everyone else, with better search results, reduced maintenance costs and increased audience reach, amongst other benefits. If you exclude anyone from using your service based on disability, you may be in breach of the Equality Act 2010.

You must plan to continually measure satisfaction of your service and carry out ongoing user research to continually improve the user experience.

There are many ways to achieve this and these are set out in the relevant points of the Local Government Digital Service Standard and **W3C Accessibility Standards**[^27].

Build a service consistent with the user experience of government digital services, including using common government platforms and the Government Service Manual design patterns.

The look and feel of services should engender confidence that the service is official and trusted.

**Common design patterns, consistent with GOV.UK**[^28] should be adopted, whilst using local brand guidelines and templates, to make the service as usable as possible.

This includes ensuring that common form elements are labelled and ordered consistently with GOV.UK. The pattern of questioning, should be consistent across all services, reusing information already captured where possible.

[^27]: https://www.w3.org/standards/webdesign/accessibility
Encourage maximum usage of the digital service (with assisted digital support if required).

The purpose of this point is to enable maximum take-up of digital services.

It is important that as many people as possible use our digital services to find information or complete their dealings with us in ways that are convenient to them and are cost effective for us to provide.

Use of our digital services is known as ‘take-up’ and is measured by the percentage of people using online services instead of other channels, such as letters or telephone. You must plan to continually increase digital take-up and show that you are measuring it.

When going live with a new digital service, it should be promoted in a way that encourages people to use the digital channel. You should use customer insight to target communications using digital and non-digital communication methods appropriate to your customer groups. Staff delivering the service must also fully understand the digital service and how they should promote its use to customers.

Whilst meeting users’ needs is covered in Points 1 and 10 of the Standard, it must also be considered as a factor to increase digital take-up.

To help increase digital take-up on an ongoing basis it is important to find out why people aren’t using the digital service, to gain an understanding of how they currently interact with the service, and why they prefer non-digital methods.

For both initial and ongoing take-up, it is important to undertake research to understand how people will need help to use the digital service, ie, they don’t have the skills or access to do so on their own. This is called Assisted Digital Support.

In addition, the digital services must be as inclusive as possible so as not to exclude anyone from using them based on disability. This is called service accessibility.

There are many ways to initiate and increase digital take-up, measure the increase, provide assisted digital support and make sure your digital service meets the accessibility standard. They are documented in the Helping people to use your service, the Measuring digital take-up, the Assisted digital support and the Making your service accessible sections of the Government Service Design Manual.

33 https://www.gov.uk/service-manual
Identify performance indicators for the service, incorporating existing indicators and publishing to a performance platform, if appropriate.

The purpose of this point is to ensure that all stakeholders involved in the end to end service understand how the service is performing. To enable this, all of the national and local performance metrics that need to be captured and measured must be built into the design of the service.

For local indicators, think about what the important facts are that will help you to identify how the end to end service is doing at any point in time and help you to navigate through the opportunities and challenges that present themselves on your service improvement journey.

Where indicators already exist, review their value against the facts that are important to the service before creating new ones. To be of value the indicators must help inform changes of practice that are designed to improve the performance of the service.

Be clear about who needs to see the performance data, when they need to see it and in what format it will be most helpful to be accessed.

When considering where to publish the data, aim to keep it in one place to maximise the chance of stakeholders knowing where to find the information you want them to see.

There is some helpful guidance on this documented in the Measuring success - Using data to improve your service35 section of the Government Service Design Manual36

36 https://www.gov.uk/service-manual
The purpose of this point is to ensure that the service is fit for purpose, maximises digital take-up, and adapts to changing user needs.

There should be a user research, usability testing and feedback plan for each of the Discovery, Alpha, Beta and Live stages. Each plan should show how research and testing will be undertaken, how often, and which staff and other resources will be used. The plan for the Live stage must specifically explain how ongoing research, testing and building will be resourced with the necessary knowledge and skills to improve the service once it is live.

Each plan should show how the full range of end users will be continuously engaged, including those with low or no ability to use the digital service, and those with particular access needs. It also needs to show how feedback from external partners will be captured, whether via formal or non-formal channels.

User research, usability testing and feedback should involve managers who will have knowledge of how well the service is working for users, and ways in which it could be improved. Where a service sits with multiple managers at an organisation level, the plan should be flexible enough to manage their feedback.

The plan should demonstrate a clear path for how qualitative and quantitative data and feedback from users, managers and external partners will feed into the research plan and design of the service.

There is guidance on this documented in the user research and the agile and government services section of the Government Service Design Manual.

37 https://www.gov.uk/service-manual/user-research
38 https://www.gov.uk/service-manual/agile
39 https://www.gov.uk/service-manual
Test the service from beginning to end with appropriate council member or senior manager responsible for it.

The purpose of this point is to ensure that the appropriate council member or senior manager has a comprehensive understanding of the relevant service, processes and technology from beginning to end. This strengthens commitment and supports them in decision-making, testing, and informed discussions with colleagues and members of the public.

Prior to launch, the appropriate council or senior manager should be walked through the whole transaction from beginning to end. For example, the senior manager responsible for a Register Office, would be walked through what a customer must do to request a copy of a birth certificate, pay, amend the quantity ordered, and what staff must do to produce the certificate, log details on systems, and reconcile finances at the end of the day.

Once live, the member or senior manager should communicate to the service design team if they become aware of any changes in policy, external developments or staff or user needs that impact on the service. Agile methods align well with the need for local government to adapt to change quickly, allowing teams to build changes into future iterations.

Further information on Agile methods is in the Agile in government services section of the Government Service Design Manual.

40 https://www.gov.uk/service-manual/agile
41 https://www.gov.uk/service-manual