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cc. Minister for Business, Trade, Tourism and Enterprise  
Director of Internal Audit and Assurance  
Permanent Secretary  
Director General Corporate  
Head of Ferries Unit, Transport Scotland  
Interim Director of Corporate Operational Support,  
Highlands and Islands Airports Ltd

28 February 2023

Dear Mr Leonard

## MAJOR ICT PROJECTS

Thank you for your letter of 21 December 2022 in which you seek additional information regarding the accountability and governance structures for major ICT projects and programmes. This follows our appearance at the Public Audit Committee (“the Committee”) on 8 December 2022.

We also note your subsequent email of 21 December 2022 requesting further information on the Calmac Ferries booking system, and 16 January 2023 requesting further information on the budget allocation for Highlands and Islands Airports Ltd.’s Air Traffic Management Strategy Programme.

We welcome the opportunity to provide clarity on the points you raise, and we have attached a response to each point in the annex below.

We hope that you find this information helpful and would of course be happy to provide any further detail that you may require.

Yours sincerely

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Director Digital

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**1) The Committee noted that its scrutiny of Major ICT project updates would benefit from the inclusion of the following information:-**

- **The job title of the most senior person accountable for each project**
- **An assessment of whether each project is on time and on budget.**

**Response:**

We propose to include both the Senior Responsible Owner and Accountable Officer job titles into future Digital Assurance Office updates on major digital projects.

With regards to whether each project is on time and on budget, I can confirm that we are considering ways to improve reporting as part of the 2023 Digital Programme.

**2) The Committee requested an example setting out of all of the elements examined at each stage of the assurance process, from the initial technical appraisal to sign off on the project. The Committee asked that we use Transport Scotland's new booking system for CalMac Ferries Ltd as a case study, and requested information on why the booking system was six years late.**

**Response:**

The governance arrangements for the Ar Turas project are atypical. Transport Scotland's Investment Decision Making Board approved the business case for the Ar Turas project and the Senior Responsible Owner role is fulfilled by its Head of Ferries Unit. The key implementation and day to day management and contractual arrangements of the new service however are delivered directly by Calmac Ferries Ltd. The Chief Executive of CalMac Ferries Ltd is the Project Sponsor.

Transport Scotland is within the scope of the Technology Assurance Framework, administered by the Digital Assurance Office, however Calmac Ferries Ltd is outwith scope. Both organisations have worked closely with the Digital Assurance Office to ensure that the project observes the Technology Assurance Framework. While not within the scope of the Technology Assurance Framework or the Ar Turas project, Calmac is also engaging with the Digital Assurance Office to carry out a Digital Standard assessment of the Calmac website and App through which users will access the new Ar Turas service.

In addition to the independent assurance provided by the Digital Assurance Office, Transport Scotland chairs an Assurance Board which includes key Calmac and Transport Scotland personnel, with the Digital Assurance Office in attendance as observer and to provide assurance advice.

The Assurance Board commissions and receives assurance reviews at each stage – although in practice this is to provide assessment and guidance to Calmac in implementing or taking forward the next step in the development of the system. Calmac also has its own internal governance framework which requires the project to be signed off by its Change Management Board at key points in the development of the business case and the introduction of the system itself.

In relation to the timing of the delivery of the system, it is not accurate to suggest that this is six years late. Calmac note that although included as part of the bid for the Clyde and

Hebrides Ferry Services 2 contract (a requirement for all bidders) the formal approval and funding to proceed with the project was confirmed following consideration by Transport Scotland Investment Decision Making Board in 2019. Procurement commenced later that year. Implementation work commenced in January 2021 so the project is on-track to deliver in just over two years. This is despite the impact of Covid 19 and taking account of the work needed to ensure the system could accommodate the significant complexity of the Calmac network.

By comparison, BC Ferries which operates 37 ferries across 25 routes implemented an eBooking software solution over five years between 2013 and 2018. A much smaller-scale and simpler implementation of eBooking was undertaken by Scandlines which operates ferry services on two routes between Denmark and Germany and was delivered over 13 months.

The table below sets out the independent assurance reviews which have been carried out or are planned on the project. While there are standard assurance gates in place for major projects these are frequently supplemented by bespoke health checks to consider particular aspects of a project or Assurance of Action Plans to consider progress taken in response to previous recommendations.

The scope of the Digital Assurance Office Pre-Procurement, Delivery and Go-Live Gates carried out on the Ar Turas project followed the standard Technology Assurance Framework process. The latest version of checklists used for these reviews are included as a separate attachment, “**Technology Assurance Framework – Gate Checklists**”.

There has been some refinement to the checklists since the earlier Ar Turas reviews, however the changes have not been major. The scope of the health checks was set out in the terms of reference for each review.

Date	Review Type	Details
April 2017	Gate 2 (Delivery Strategy) review	The project was initiated prior to the implementation of the Technology Assurance Framework and the first assurance activities were undertaken using the Gateway Review process. The Gate 2 considers the project’s viability, potential for success, value for money, and the proposed approach for achieving the delivery of the project’s objectives.
June 2017	Gate 2 (Delivery Strategy) Assurance of Action Plan	This review considered the action taken in response to the recommendations of the April 2017 Gate 2 review.
August 2017	Pre-Procurement Gate and Digital First Service Standard Discovery Assessment	This was the first review under the Technology Assurance Framework and took the form of a combined Pre-Procurement Gate and Digital Standard assessment. The review considered readiness for commencement of the procurement exercise for a new back office solution for the Clyde and Hebrides Ferry Service.

Date	Review Type	Details
August 2019	Health check	Project work was paused from September 2017 and re-mobilised in December 2018 (pending Transport Scotland's investment decision referenced above). Following consideration of the Outline Business Case in March 2019, the Investment Decision Making Board agreed to proceed with the mobilisation, market engagement and procurement phase of the project. The purpose of this health check was to provide assurance to the Senior Responsible Owner that the new programme team had mobilised and was in a good position to proceed with procurement of the solution over the next 12 months.
October 2019	Pre-Procurement Gate	Given the elapsed time since the August 2017 Pre-Procurement Gate, and the further market engagement carried out by the project a new Pre-Procurement Gate was carried out.
June 2020	Health check (desk based review)	This review examined the revised Invitation to Tender and Procurement Strategy, which arose as a consequence of feedback from bidders indicating a desire to bid for provision of software, as opposed to a fully managed service solution.
August 2020	Pre-Procurement Gate and Gate 3 (Investment Decision) Review	These reviews were carried out in parallel, with some elements of the Pre-Procurement Gate descoped because the Gate 3 scope covered these. The <a href="#">Gate 3</a> considers whether the recommended investment decision is appropriate before a contract is placed. This Pre-Procurement Gate considered components of the project (e.g. cloud hosting, integration support) which may require further procurements if a decision was taken not to include these elements within the software contract.
April 2021	Delivery Gate	Determines if the delivery strategy remains appropriate, is on track and standards are met.
January 2022	Health Check	This considered readiness for a future Go-Live Gate using the Go-Live checklist to frame the review.
July 2022	Health Check	This health check considered progress since the January 2022 health check and the action taken on previous recommendations.
March 2023	Go-Live Gate	Considers whether systems and business processes are ready for service.

While not applicable to the Ar Turas project, assessment for compliance with the Digital Scotland Service Standard is the other aspect of assurance work carried out by the Digital Assurance Office. The depth of assessment is determined following triage of the risk/cost profile of a service. Minimum Evidence Frameworks are in place for both Agile and Waterfall delivery methods which set out the typical evidence expected for each stage of assessment.

We have attached the “**Minimum Evidence Framework**” for a high risk/cost Agile delivery as an example in a separate Excel spreadsheet.

**3) The Committee requested an explanation for what happened to the £45 million allocated to the Highlands and Islands Airports Ltd.'s Air Traffic Management Strategy Programme.**

**Response:**

The project costs reported through the Digital Assurance Office's six monthly updates on major digital projects are estimated whole life costs which are used to help assess the likely assurance requirements for the project. These do not necessarily reflect the actual budget secured by a project.

In the case of the Air Traffic Management Strategy (ATMS) Programme, Highlands and Islands Airports Ltd (HIAL) advise that the estimated costs for the Programme were outlined at an early stage as required by the Programme governance and were confirmed to allow for funds to be committed at each of the Gateway steps in that process. The HIAL Board made the decision to stop the ATMS Programme and therefore the governance process did not progress to the later Gateway stages and the full estimated budget for ATMS was not confirmed or secured.

HIAL has confirmed that the amount spent on the Programme as at 31/8/2022 is £9.97m. The breakdown of this spend has been published on the [HIAL website](#). This includes notes regarding spend on investment for the benefit of the business and currently falling under 'business as usual'. An accounting and audit process to provide the costs solely related to the ATMS programme will be completed for the end of the current financial year.

**4) The Committee asked for the total cost of the Digital Academy to date.**

**Response:**

The total cost of the Scottish Digital Academy since its commencement in 2018 to 31 December 2022 is £2,802,749. This includes staff and programme delivery costs.

**5) The Committee asked for confirmation of whether a threshold for Ministerial approval or sign off for a project exists, and if so, what this is.**

**Response:**

The Scottish Public Finance Manual does not place a threshold for Ministerial approval of projects.

However, in response to the unprecedented level of budgetary pressure caused by inflation, public sector pay and the cost of living crisis, the Scottish Government has been operating a system of Accountable Officer templates whereby all new capital and resource commitments exceeding £1 million require approval by the Minister for Public Finance, Planning and Community Wealth, and commitments exceeding £5 million requiring approval by the Cabinet Secretary for Finance and Economy.

## 6) The Committee asked for the current terms of reference for the Digital Board, and the new terms of reference when agreed in February 2023.

### Response:

The current Terms of Reference for the Digital Board were established in April 2022 and are as follows:-

### Mission Statement

To provide oversight of digital transformation across central government and delivery bodies by acting as a forum for agreeing, monitoring, coordinating and providing assurance of cross-cutting and horizontal digital functions. To bring consistency to decisions requiring a collective view and how these relate to, and enable the delivery of, the Scottish Government's digital transformation objectives. To provide scrutiny of the progress in the delivery of the commitments set out in the [digital strategy](#).

### Roles and Responsibilities

The Digital Board will support the work of the Joint Digital Strategy Leadership Board ("the Joint Board"), which is the top layer of governance co-chaired by Scottish Government Ministers and Local Government Councillors, with the responsibility for overseeing and driving forward the commitments made in the digital strategy. In advance of each Joint Board meeting, the Digital Board will:

- Consider the quarterly 'Actions and Outcomes' reporting pack, which provides an overview of the joint progress status of strategy actions and insights.
- Provide an advisory and challenge function to the progress of strategy actions.
- Identify any significant issues and commission papers or review work on areas assessed that require closer examination, or which need to be escalated for the Joint Board's collective agreement.

### Regular items for consideration

The Digital Board will consider issues such as:

- Strategic fit and alignment across the wider public sector of digital strategy actions in relation to the Scottish Government's broader strategic objectives.
- Areas for strengthening collaboration across central and local government to avoid duplication of work and set shared priorities.
- Strategy actions that are considered to have changed priority in terms of cost, reach and performance.
- Risks (e.g. reputational, financial, operational, compliance etc.) that need to be escalated to the Joint Board.
- How to support and accelerate delivery by matching the right people to the right projects, at the right time, and opportunities to share learning, reuse work and build capability across the wider public sector.
- How members can provide leadership on significant issues identified in relation to their own portfolios or areas of responsibility or influence.
- Any future iteration of the digital strategy.

## Relationship with other Governance and Advisory Forums

The Digital Board will not replicate or replace project-specific governance and assurance processes. It will assist the Joint Board in providing strategic leadership: scrutinising delivery, shaping priorities, and helping to unblock barriers to delivery:

- The Digital Board will work closely with its Local Government counterpart, the Local Government Digital Partnership Board, to bring consistency to cross-public sector decisions requiring a collective view of the Joint Board (Figure. 1).
- The Technical Assurance Sub-Group will support the work of the Digital Board and Local Government Digital Partnership Board by providing advice and guidance on issues relating to digital components and platforms, and underpinning architecture (Figure. 1).

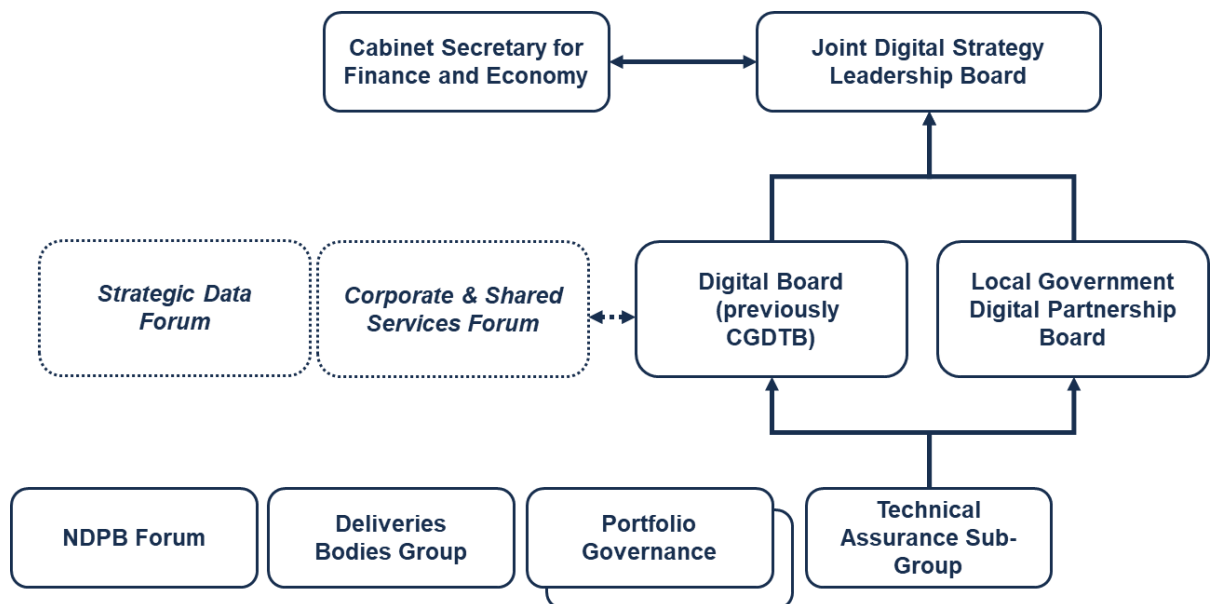


Figure 1

- The Digital Board will work closely with the Corporate and Shared Services Forum on broader issues relating to digital transformation (Figure. 2).



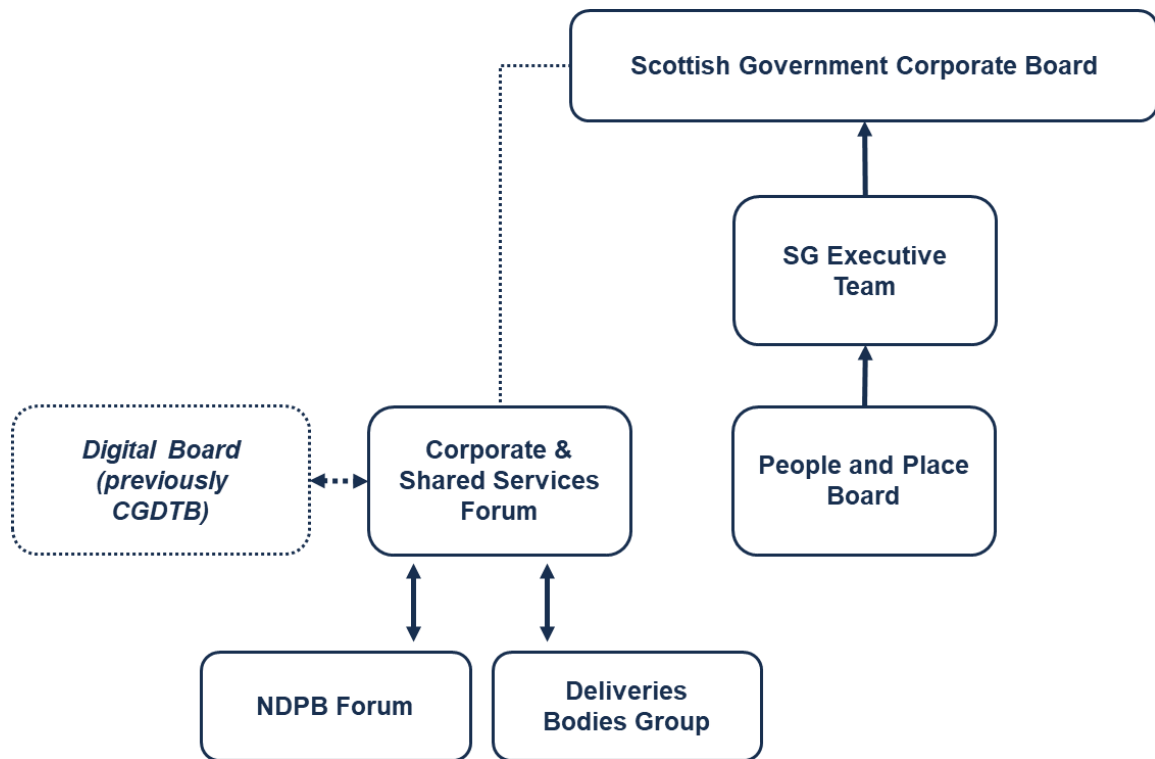


Figure 2

## Frequency and Administration

- The Board will meet quarterly, around 2-3 weeks in advance of the Joint Board.
- Secretariat will be led by the Digital Directorate Policy and Strategy Team.

## Digital Board Membership

- Lindsay Montgomery, Chair
- Geoff Huggins, Director Digital, Scottish Government
- Anne Aitken, Deputy Director, Performance and Delivery Unit, Scottish Government
- Lisa Baron-Broadhurst, Programme Director, Social Security, Scottish Government
- Jonathan Brown, Parliamentary Council, Scottish Government
- Jonathan Cameron, Deputy Director, Digital Health and Care, Scottish Government
- Thomas Christianson, Netcompany
- Jennifer Henderson, Representative of the Central Government Delivery Bodies Group
- Donald McGillivray, Director, Safer Communities, Scottish Government
- Peter Proud, CEO and Founder, Forrit
- Fiona Simpson, Chief Planner, Scottish Government
- Amina Shah, National Libraries Scotland, Representing NDPB's
- Eddie Turnbull, Deputy Director, Agriculture and Rural Economy, Scottish Government
- Martyn Wallace, Chief Digital Officer, Scottish Local Government Digital Office
- Sam Anson, Deputy Director Improvement, Attainment and Wellbeing, Scottish Government
- Mary McAllan, Director of Covid Recovery and Public Sector Reform
- Neil Rennick, Director Justice, Scottish Government



## 7) Digital Board – New Terms of Reference

The new Terms of Reference for the Digital Board are still being finalised. We will provide the Committee with the updated information in a separate letter once this is available.

## TECHNOLOGY ASSURANCE FRAMEWORK – MAJOR PROJECT REVIEW GATE CHECKLISTS

### Business Justification Gate

The project is soundly based at the outset and has a robust Strategic Business Case. It is adequately scoped and has considered and addressed resourcing and skills.

#### PLANNING

- Have the recommendations of Audit Scotland's '[Principles for a Digital Future](#)' been considered as part of the planning process?
- Is the Strategic Business Case sound?
- Have alternative options considered been analysed and documented?
- Where appropriate, is it clear how this technology project contributes to the wider programme?
- Where appropriate, does the project align to the Scottish Government's [Cloud First](#) policy?
- Is the project clear about the business outcomes which it is intended to deliver?
- Is the organisation clear what is driving the project (e.g. IT led or Business led)?
- Have benefits been identified and quantified where appropriate?
- Are the relevant skills and resources in place now for this stage of the project?
- Have the relevant skills and resources been identified for delivery of the project and is there a strategy for sourcing these?
- Have the organisation's corporate functions been consulted and their support secured where there are relevant project dependencies (e.g. for future support arrangements)?

#### GOVERNANCE

- For major investment projects as defined in the [Scottish Public Finance Manual](#), has the project SRO received a formal letter of appointment from the Accountable Officer?
- Are appropriate governance arrangements in place with clear lines of accountability?
- Are risk, issue and dependency management strategies in place?
- Have the key risk and issues (including cyber security) been identified and documented?

- Is there a high level project plan, identifying the critical path and any interdependencies?
- Where appropriate, does this identify delivery of a Minimum Viable Product and is this signed off with stakeholders?
- Is a Benefits Realisation Strategy in place, defined and agreed with stakeholders and are mechanisms in place to track benefits?

## **PROCUREMENT/COMMERCIAL**

- Have contract management issues been considered (e.g. for intelligent customer/client side support)?
- If procurement will be required, have procurement options been considered?
- Has there been appropriate engagement with the procurement function and will there be sufficient support from procurement expertise when needed?
- Have procurement timelines been factored into planning and are the timelines credible?
- Have minimum cyber security and/or data requirements with potential suppliers been established?
- Are the market and risks understood (e.g. for leading edge technology, is terminology understood, has there been any pre-tender market engagement)?

## **STAKEHOLDERS/USERS**

- Have stakeholders been identified?
- Has user research been conducted?
- Is there a communication and engagement strategy in place?
- Are best practice and lessons learned across professional communities for example Digital, Data and Technology Community of Practices and the Once for Scotland collaboration group being shared by the project team with the wider organisation?

## **STRATEGIC OVERSIGHT AND ASSURANCE**

- Is the project plan sufficiently developed?
- Where appropriate, is there a clear understanding of the requirements of the different assurance processes which are being applied to the project (e.g. Technology Assurance Framework and Gateway Reviews)?
- Is there an Integrated Assurance and Approval plan in place?
- For new or transformed services, has the project passed [a Digital Scotland Service Standard](#) assessment following exploratory (Discovery) work?

## STANDARDS

- Does the Project align to the [Digital Strategy for Scotland](#)?
- Where appropriate, has compliance with the [Digital Scotland Service Standard](#) and other national standards been considered?
- Is there a plan for meeting accessibility, equalities and data protection regulations?
- If any deviation from standards is proposed, is there a credible explanation and has the deviation been agreed and signed off?

## DELIVERY METHOD

- Has the delivery strategy and structure been articulated?
- Is there a clear approach to business change, including clear ownership of business change and plans co-ordinated with project delivery?
- Is appropriate documentation being maintained and configured?

## Pre-Procurement Gate

The procurement strategy is sound and the commercial risks are understood.

### PLANNING

- Is the Outline Business Case sound?
- Is the project still viable?
- Is project scope clearly defined?
- Has the project plan been refined and has contingency been built in for timescales, quality and cost?
- Where appropriate, does the project plan align to the programme plan?
- Are procurement activities appropriately reflected in the plan?
- Are the expectations of delivery timescales realistic?
- Is there a contingency plan in place?
- Are business change plans sufficiently developed for this stage of the project?
- Are the relevant skills and resources in place now and planned for the next stage of the project?
- Is there a resource plan in place identifying how further skills and resources will be secured for the project?
- Does the project team have the sufficient capacity and the appropriate capability to manage the delivery in partnership with the supplier?
- Has consideration been given to any necessary, further procurement activity which may be required beyond the project and has a roadmap been considered for this?

### GOVERNANCE

- For major investment projects as defined in the [Scottish Public Finance Manual](#), has the project SRO received a formal letter of appointment from the Accountable Officer?
- Is the governance model active, dynamic and appropriate, with sufficient independent expertise available?
- Is Audit Scotland's '[Principles for a Digital Future](#)' being actively referenced as a resource to support robust ICT project management?
- Are all costs within budget and are appropriate mechanisms in place to manage and control budgets?
- Are key risks being actively managed and mitigated?
- Have key issues been addressed?

- Are key decisions being appropriately documented?
- Does the business understand what will happen with existing data and the data model?
- Is a benefits realisation strategy and plan in place which sets out benefits owners, the process for measuring benefits and is clear about those benefits which will be delivered in-project and post-project?
- Have appropriate quality controls been applied to the sign off of business requirements?
- Is the business content with recovery time and recovery point objectives?
- Are change control processes sufficiently robust to manage potential scope creep?
- Have all design decisions received sign off at the appropriate governance level (e.g. Technical Design Authority) and are these documented appropriately?
- What steps are included within the plan to ensure the MVP does not become the full and final product (e.g. Continuous Improvement is actually applied and achieved)?

## **PROCUREMENT/COMMERCIAL**

- Is the sourcing strategy appropriate and robust?
- Has the sourcing strategy been signed off by the programme board/procurement and are the implications understood?
- Is the Statement of Requirements comprehensive and does it convey a clear articulation of all identified requirements?
- Are all requirements identified in the Statement of Requirements consistent with the requirements identified and documented through requirements gathering/user research?
- Where appropriate is there a clear definition of which requirements are mandatory and which desirable?
- Is there a clear articulation of assumptions and constraints?
- Does the Statement of Requirements clearly set out Service Level Agreements in relation to Defect Management?
- Have key stakeholders such as multi-agency partners had the opportunity to review and endorse the Statement of Requirements prior to sign off?
- Do business expectations match the maturity of the envisaged technical solution and has market testing been explored?
- Has procurement policy been observed?
- Are the evaluation criteria robust?
- Is there a robust and understood evaluation process, with evaluation panel identified and plans for training where appropriate?
- Will the proposed approach achieve whole life value for money?
- Has the treatment/ownership of Intellectual Property Rights (IPR), indemnities and liabilities been adequately addressed?
- Is the form of contract appropriate to the requirement?
- Is there a mechanism in place to manage any change to scope/requirements?

- Is there a clear plan for on-boarding the supplier?
- Is a supplier/contract management plan in place and resource identified and committed for this?
- How will the exit strategy be agreed and factored into the contract?

## **STAKEHOLDERS/USERS**

- Have the business requirements been informed by user research?
- Have the business requirements been signed off?
- Has a robust stakeholder identification exercise been undertaken and a stakeholder power/influence matrix been produced to inform the engagement/communication strategy?
- Is there a communication and engagement plan in place?
- Are best practice and lessons learned across professional communities for example Digital, Data and Technology Community of Practices and the Once for Scotland collaboration group being shared by the project team with the wider organisation?
- Does the organisation have a clear and common understanding of what is being procured?

## **STRATEGIC OVERSIGHT AND ASSURANCE**

- Has compliance with the Technology Assurance Framework been stipulated in the Invitation to Tender?
- Are assurance mechanisms being used effectively?
- Does an Integrated Assurance and Approval Plan exist and is it being actively used?

## **STANDARDS**

- Has compliance with legislation and standards (e.g. [Digital Scotland Service Standard](#), General Data Protection Regulation; technical standards; ISO standards) been built into the Invitation to Tender?
- Have security, resilience and safety been considered and budgeted for?

## **DELIVERY METHOD**



- Is the proposed delivery method appropriate?
- Are plans in place to ensure the required environments are built and supported?
- Where relevant, has integration with legacy systems been considered/analysed and are the risks/challenges known?
- Have hosting arrangements been considered, ensuring where appropriate alignment with the [Cloud First](#) strategy?
- Have non-functional requirements been defined?
- Is there a Quality Management Strategy in place?
- Is appropriate documentation being maintained and configured?

## TESTING

- Is the Test Approach and/or Strategy understood and accepted by the project team and all associated business teams?
- Are sufficient testing staff available for testing requirements?
- For user testing, are sufficient user involvement plans in place and arrangements for ensuring users are available agreed?

## SUPPORT

- Is the strategy for supporting and maintaining the solution in place?
- Have lifetime costs for support and maintenance been considered?

## Delivery Gate

**The delivery strategy remains appropriate and there is a valid Full Business Case. Delivery is on track and standards are met.**

### PLANNING

- Does the business case remain viable?
- Are the relevant skills and resources in place now and planned for the next stage of the project?
- Has the resource plan been reviewed and signed off?
- Are dependencies being managed effectively?
- Is the scope of a Minimum Viable Product understood and agreed by all stakeholders and is it stable?
- Are contingency plans sufficiently developed?
- Is there a Production transition plan in place?
- Have Disaster Recovery plans been developed?
- Is there a Capacity Plan in place for all environments?
- Are business readiness plans sufficiently developed for this stage of the project?
- Are business continuity plans being developed for post-launch?

### GOVERNANCE

- Is Audit Scotland's '[Principles for a Digital Future](#)' being actively referenced as a resource to support robust ICT project management?
- Is the project governance providing appropriate control and oversight?
- Does the project/programme board have sufficient independent expert advice available if needed?
- Are key risks being actively managed and mitigated?
- Are key issues being addressed?
- Has action been taken to mitigate any past or future deviations to time, quality or cost?
- Are there effective change management processes in place?
- Has the benefits plan been updated and do the descriptions and quantification of benefits remain current?

- Are benefits being actively managed and are these consistent with those identified in the Benefits Realisation Strategy?
- Is there ownership and accountability for the realisation of benefits?

## **PROCUREMENT/COMMERCIAL**

- Is commercial management in place?
- Are supplier performance levels agreed?
- Is supplier performance being measured and within tolerance?
- Are there any changes since award of contract that will affect business change plans or impact on the viability of the contract (e.g. pose risk of market challenge)?
- Is there an ongoing understanding of the market and the supplier's commercial model?

## **STAKEHOLDERS/USERS**

- Is the communication plan being actively managed and feedback sought?
- Are stakeholders being actively engaged in the project?
- Is there evidence of sustained user engagement?
- Are best practice and lessons learned across professional communities for example Digital, Data and Technology Community of Practices and the Once for Scotland collaboration group being shared by the project with the wider organisation?
- Have/are users been involved in testing?
- If internal staff require training/knowledge transfer are there active plans for managing this?
- Is ownership of this new service clearly defined and understood?

## **STRATEGIC OVERSIGHT AND ASSURANCE**

- Are assurance mechanisms being used effectively?
- Does an Integrated Assurance and Approval Plan exist and is it being actively used?

## **STANDARDS**

- Are IT standards being met in relation to:
  - Application Architecture
  - Application Design
  - Architecture Design
  - Security Design
  - Data provisioning/migration
- Are the right plans in place to ensure that the solution meets security standards? (e.g. penetration testing; Cyber Essentials).
- Where appropriate, is the service compliant with the [Digital Scotland Service Standard](#)?
- Have accessibility, equalities and data protection been built into the solution?
- If personal data is being collected, is there a Data Protection Impact Assessment, privacy notice and information asset record in place?
- Can the solution respond to a subject access request? (e.g. can the user download their own records rather than manual interrogation of the system being required to fulfil subject access request requirements).

## DELIVERY METHOD

- Is the delivery approach sound?
- Where appropriate, are the principles of the [Cloud First](#) strategy reflected in the solution?
- Is there evidence that the delivery method is being executed well?
- Is there a deliverables log in place?
- Is appropriate documentation being maintained and configured?
- Are configuration and asset management procedures in place?
- Is there a working prototype?
- Is technical debt being managed efficiently?
- Are incident management processes in place?
- Are defect management processes in place?
- Are data management practices in place?
- Is there an appropriate Roll Back plan if needed?

## TESTING

- Are there appropriate test strategies and plans (e.g. system testing; user acceptance testing; performance testing; operational acceptance testing)?
- Are the testing strategies credible and appropriate to the service?
- Have the test strategies been signed off by the Project Team and, where appropriate, with users?
- Is there evidence of compliance with the test strategies?
- Have the Test Plan(s) been signed off across the test levels (e.g. functional, non-functional and acceptance) by the Project Team?
- Are exit and entry criteria for tests being achieved, or likely to be achieved?
- Are defects being managed appropriately?
- Do testing metrics indicate that the delivery model is effective?

## **SUPPORT**

- Has the support strategy been reviewed and is it appropriate to the solution?
- Are the conditions for entry into business as usual being developed to enable monitoring of progress towards go-live?
- Where appropriate, are staff being trained to support the system or are other arrangements in place/being planned (e.g. supplier/3rd party supplier support)?
- Where appropriate, are knowledge transfer arrangements in place (e.g. from the supplier to the business)?

## Go-Live Gate

The solution is ready to be launched into production use and the organisation is ready to accept the business change.

### PLANNING

- Does the business case remain viable?
- Is there an approved and resourced go-live plan in place?
- Is there an approved business change plan in place?
- Is the organisation ready for the business change?
- Are benefits realisation plans still viable?
- Are business continuity plans in place and tested?
- Are performance management plans in place?
- Are the relevant skills and resources in place to support the solution once it is in Production?
- Are dependencies being managed effectively?
- Has the IT deployment plan been approved and tested?
- Does the IT deployment plan have checkpoints and rollback points and are these credible?
- Is there a tested Disaster Recovery plan in place?
- Is there a Capacity Plan in place for all environments?
- Where appropriate, are data sharing arrangements in place?

### GOVERNANCE

- Is the project governance providing appropriate control and oversight?
- Is the governance for approving the launch into live use understood and documented?
- Are governance arrangements in place post-launch, including accountability for and monitoring of benefits realisation?
- Has ownership of the new service once launched been formally recognised across the organisation?
- Is system and user documentation approved and subject to configuration management?
- Are key risks being actively managed and mitigated?
- Have key issues been addressed?

- If there are unresolved issues, can go-live be deferred or, alternatively, are the risks of launching with unresolved issues fully understood, documented and is the risk acceptable?
- Are there effective change management processes in place?
- Have all changes to the solution been authorised?
- Are incident and problem management processes in place for post-launch?

## **PROCUREMENT/COMMERCIAL**

- Is commercial management in place?
- Have the necessary sign-offs taken place to demonstrate completion of contract?
- Is supplier performance measured and acceptable?
- Are there any changes since award of contract that will affect project delivery and are these appropriately documented and understood?
- Is there an ongoing understanding of the market and the supplier's commercial model?
- Are arrangements in place to manage ongoing supplier relationships?

## **STAKEHOLDERS/USERS**

- Is the communication plan in place to support the launch and live operations?
- Have stakeholders been actively engaged in the project?
- Do stakeholders have confidence in the solution?
- Are best practice and lessons learned across professional communities for example Digital, Data and Technology Community of Practices and the Once for Scotland collaboration group being shared by the project team with the wider organisation?
- Is there a plan for ensuring lessons learnt are embedded in future projects across the organisation?
- Have users been involved in testing and signed off the solution?
- If appropriate, have internal staff been trained/gained knowledge transfer to enable operational use of the solution?
- Are plans in place to support users in the immediate period following launch (e.g. helpdesk, floorwalkers)?

## **STRATEGIC OVERSIGHT AND ASSURANCE**



- Have assurance mechanisms being used effectively?
- Is there evidence that quality standards are being met?
- Has the assurance applied to the project been appropriate?
- Does an Integrated Assurance and Approval Plan exist and is it being actively used?

## STANDARDS

- Have IT standards been met in relation to:
  - Application Architecture
  - Application Design
  - Architecture Design
  - Security Design
  - Data provisioning/migration
- Does the solution meet security standards (e.g. penetration testing; Cyber Essentials)?
- Where appropriate, is the service compliant with the [Digital Scotland Service Standard](#)?

## DELIVERY METHOD

- Is there evidence that the delivery approach has been executed well?
- Have all deliverables been produced?
- Has appropriate documentation been produced and maintained?
- Are configuration and asset management procedures in place?
- Is there a working prototype?
- Is technical debt being managed efficiently?
- Is there a strategy in place for managing and creating value from data assets?
- Where appropriate, is there a roadmap for the future of the system?

## TESTING

- Have all test plans been completed and evidenced via Test Completion Reports and are these accepted by the Project Team? ( e.g. non-functional (i.e. performance, security) testing against exit criteria and acceptance testing against exit criteria)
- Has there been sufficient end to end testing?
- Has the roll back plan been tested?
- Have interfaces with other systems been tested?
- Has any data migration/conversion been tested and signed off by users?
- Are any residual (usually) low defects accepted and workarounds recorded alongside formal acknowledgement on the project risk register for Go-Live?
- Where appropriate, has the formal Automated Regression Pack been accepted by the Operational Team and is it suitable for execution on any future release?

## **SUPPORT**

- Is there an approved support strategy in place and have pre-determined criteria been established for entry into business as usual?
- Where appropriate, have staff being trained to support the system?
- Where appropriate, are Service Level Agreements in place?
- Where appropriate, has knowledge transfer taken place (e.g. from the supplier to the business)?

## Purpose of Document

- This Minimum Evidence Framework sets out the criteria and artefacts required for the assessment of a Service.
- This document can be used by both the Service and Assessment teams.
- There are various versions of the Minimum Evidence Framework, which relate to different delivery methodologies (Agile vs. Waterfall) and levels of assessment (DSA1, DSA2, and DSA3).
- The Digital Assurance Office (DAO) will determine which framework should be used, based on the Project Triage Assessment for the Service at this stage / phase. A hybrid assessment may require the use of both the Agile and Waterfall Minimum Evidence Frameworks.

## Instructions for use

Before using the Minimum Evidence Framework, please ensure that you have read the training handbook and assessment Terms of Reference which provide additional guidance on how this document should be used.

1. Agree on the required Minimum Evidence Framework using the Project Triage Assessment tool.
2. Assess the Service against each criteria, using the Minimum Evidence Framework as a guide.

The tabs below relate to the Digital Scotland Service Standard criteria. Within each tab, the principles from the Standard are called out, along with the evidence points required to assess them.

Refer to the column for this stage / phase of assessment (e.g. Alpha, or Test & Go-Live) to understand the points which should be discussed between the Service and Assessment Teams during the Show and Tell, Service and Assessment Team Briefings, and Summary Meeting. The Assessment Team should also be provided with evidence against each point. This framework suggests artefacts that might be used for this purpose, however other documents may also be provided as appropriate.

- The User-Centred Design Assessor is responsible for assessing the green tabs (Criteria 1-5)
- The Product and Delivery Assessor is responsible for assessing the yellow tabs (Criteria 6-7, 9, and 14)
- The Technical Assessor is responsible for assessing the blue tabs (Criteria 8, and 10-13)

## 1. Understand users and their needs

## Digital Scotland Service Standard - Minimum Evidence Framework (Agile - DSA1)

What the Project/Service Team should do	What Assessors need to see	Discovery	Sample Artefacts (Discovery)	Alpha	Sample Artefacts (Alpha)	Beta	Sample Artefacts (Beta)	Commentary
<b>Understand what research has already been done;</b> take time to understand what you already know about users, reflecting on any existing research	<i>Evidence that existing research has been explored through desk research.</i>	The Service Team should provide an overview/list of secondary research sources used, be able to explain how these have informed the user research plan, and demonstrate that the research and user research plan have been shared for feedback/validation (for example from colleagues, peers, or users and citizens).	<ul style="list-style-type: none"> <li>- Literature review of existing research</li> <li>- Knowledge Base</li> <li>- Quantative and qualitative sources.</li> </ul>					This might take the form of a literature review, research which has been conducted on existing or similar services, research which has been conducted on similar user groups, information that has informed policy decisions, including the Equality Impact Assessment (EQIA). Teams should reach out to equivalent or other orgs who may have research to share. This corresponds with criterion 12 - reuse. This information will have been used to develop a user research plan, with research questions and gaps identified. This will show the panel the evidence used to develop understanding of user needs and is important at the Discovery phase.
<b>Make sure data guides your decisions;</b> explore what data can help you make decisions, from open data to call centre stats and web analytics	<i>Evidence that there is an understanding of what data is available to the team to inform and validate research findings, also what data will be used to test and learn throughout delivery.</i>	The Service Team should provide an overview/list of data sources, be able to explain how these have informed the user research plan, and demonstrate that the data sources and user research plan have been shared for feedback/validation (for example from colleagues, peers, or users and citizens).	<ul style="list-style-type: none"> <li>- List of Data sources and how they will be / are being used</li> <li>- Relevant Examples of the above</li> </ul>					<p>This will evolve throughout the phases as user needs are developed and tested in delivery. This will include qualitative and quantitative user research and analysis.</p> <p>Data sources include online and offline feedback via webpages or other means like consultations, complaints logs, call centre data. Web analytics for online content.</p>
		The Service Team should provide an overview/list of data sources which will be used to inform development of user needs in Alpha.	<ul style="list-style-type: none"> <li>- List of Data sources and how they will be / are being used</li> </ul>	The Service Team should provide an overview/list of data sources which will be used to inform development of user needs in Beta. In addition, the Service Team should demonstrate how these sources are being used to improve user needs definition, with examples from Alpha.	<ul style="list-style-type: none"> <li>- List of Data sources and how they will be / are being used</li> </ul>	The Service Team should provide an overview/list of data sources which will be used to inform development of user needs in live. In addition, the Service Team should demonstrate	<ul style="list-style-type: none"> <li>- List of Data sources and how they will be / are being used</li> </ul>	Evidence point corresponds with Criterion 7 - Iterate and Improve.

						how these sources are being used to improve user needs definition, with examples from Beta.		
<b>Do research with a wide range of people;</b> have a clear idea of what you're trying to find out through user research and who you need to include	<i>Evidence that shows the approach to primary user research.</i>	The Service Team should demonstrate what primary research activities they have undertaken in Discovery, and provide a plan for how they will conduct primary research activities in Alpha.	<ul style="list-style-type: none"> <li>- Documented user stories, personas, profiles</li> <li>- Design Principles</li> <li>- User Research Plan</li> <li>- User Research Recruitment Strategy including Socio-Economic Breakdown of all stakeholders involved in UR</li> </ul>	The Service Team should demonstrate what primary research activities they have undertaken in Alpha to test their service concept, and provide an updated plan for how they will conduct further primary user research activities in Beta.	<ul style="list-style-type: none"> <li>- Updated or new user stories, personas, profiles</li> <li>- Updated/iterative Design Principles</li> <li>- User Research Plan (Updated to reflect plan for Beta)</li> <li>- User Research Recruitment Strategy including Socio-Economic Breakdown of all stakeholders involved in UR</li> </ul>	The Service Team should demonstrate what primary research activities they have undertaken in Beta to test their service, and provide an updated plan for how they will conduct further primary user research activities in Live.	<ul style="list-style-type: none"> <li>- Updated or new user stories, personas, profiles</li> <li>- Updated/iterative Design Principles</li> <li>- User Research Plan (Updated to reflect plan for Live)</li> <li>- User Research Recruitment Strategy including Socio-Economic Breakdown of all stakeholders involved in UR</li> </ul>	This should include how users have been identified and recruited, gaps/ research questions, a description of research activities and timelines. There should be provision within the user research plan to address accessibility. It's important this provides confidence in the methods used to develop user needs because this will underpin what's being delivered as a service. This is a key activity during the Discovery phase and will be constantly revisited and matured throughout Alpha, Beta and Live.
<b>Be ethical and inclusive;</b> speak to the right users, removing any barriers that might prevent them in taking part in research, and do no harm to participants	<i>Evidence that shows an approach to making sure all potential users of a service have an opportunity to take part in research activities (both in being participants and making sure research methods are accessible).</i>	<p>The Service Team should provide an ethics plan / overview of how the ethics of research has been considered as part of research planning. This should cover the diversity of research participants and the sampling approach, and informed consent to make sure that users fully understand the purpose of the research and their rights before participating.</p> <p>It should also cover the accessibility and inclusivity of research activities - particularly that biases have been removed during analysis, and that research and design work will be sensitive to protected characteristics (for example gender, age, disability etc.). Care should be taken on how research is communicated.</p>	<ul style="list-style-type: none"> <li>- Ethics policies used e.g. citizen consent</li> <li>- EQIA (Equality Impact Assessment)</li> <li>- Sampling Approach and Plan</li> <li>- Example of Citizen Consent Form</li> </ul>	In addition to the requirements at Discovery, the Service Team should evidence any additional considerations based on research activities in Alpha and for testing in the Beta phase.	<p>Any changes or updates to:</p> <ul style="list-style-type: none"> <li>- Ethics policies used e.g. citizen consent</li> <li>- EQIA (Equality Impact Assessment)</li> <li>- Sampling Approach and Plan</li> <li>- Example of Citizen Consent Form</li> </ul>	In addition to the requirements at Alpha, the Service Team should evidence any additional considerations captured for research activities to for Beta and testing the live service.	<p>Any changes or updates to:</p> <ul style="list-style-type: none"> <li>- Ethics policies used e.g. citizen consent</li> <li>- EQIA (Equality Impact Assessment)</li> <li>- Sampling Approach and Plan</li> <li>- Example of Citizen Consent Form</li> </ul>	Steps taken to safeguard against biases in participant sample design, and care and consideration into making sure participants and researchers are safe (for example considering the impact of doing research on sensitive topics). A document is produced and signed off before research activities take place. It may be necessary to complete an EQIA for the user research plan if one has not been completed already at the policy stage.

<p><b>Do research legally;</b> make sure you are collecting and processing data legally</p>	<p><i>Evidence that demonstrates an understanding of the legal basis in which personal data is being collected for research purposes, with documentation that shows the data is being collected and processed in a way that complies with data protection regulations.</i></p>	<p>The Service Team should evidence that they have undertaken a data protection impact assessment (DPIA) for research activities.</p>	<ul style="list-style-type: none"> <li>- Data Protection Impact Assessment (DPIA)</li> <li>- Legal compliance policies e.g. UK GDPR</li> </ul>	<p>In addition to the requirements at Discovery, the Service Team should evidence any additional considerations based on research activities in alpha and for testing in the beta phase.</p>	<p>Any changes or updates to:</p> <ul style="list-style-type: none"> <li>- Data Protection Impact Assessment (DPIA)</li> <li>- Legal compliance policies e.g. UK GDPR</li> </ul>	<p>In addition to the requirements at Alpha, the Service Team should evidence any additional considerations captured for research activities to for beta and testing the live service.</p>	<p>Any changes or updates to:</p> <ul style="list-style-type: none"> <li>- Data Protection Impact Assessment (DPIA)</li> <li>- Legal compliance policies eg UK GDPR</li> </ul>	<p>Consent - or 'agreement to participate' - must be understandable and appropriate to vulnerable people (participants should understand how their personal data will be used by the project, that there is no pressure to take part and they can stop at any point, how their responses will be stored, used and destroyed). A document is produced and signed off before research activities take place.</p>
<p><b>Make sure what you deliver is based on evidence;</b> consider how your research becomes insight</p>	<p><i>Evidence that the delivery team has a robust understanding of who the users are and their needs/problems/lives/context.</i></p>	<p>The Service Team should provide an overview of user needs, which should include an overview/ demonstration of how user research insights were reached. In doing so, the Service Team should discuss what evidence informed the insights, and how they tested the validity of the insight (e.g. did they validate insights with other members of the team and or users?) A summary of how the insights have informed design decisions for Discovery and have informed alpha phase planning should be provided.</p>	<ul style="list-style-type: none"> <li>- Documented user stories, personas, profiles</li> <li>- User Research Plan</li> </ul>	<p>The Service Team should evidence how they have developed user needs during alpha, with an overview/ demonstration of how user research insights were reached. In addition, the Service Team should demonstrate how User Research informed the insights, how they were validated, and provide a summary of how the insights have been used to plan the Beta phase.</p>	<ul style="list-style-type: none"> <li>- Updated or new user stories, personas, profiles</li> <li>- User Research Plan (Updated to reflect plan for Beta)</li> </ul>	<p>The Service Team should evidence how they have developed user needs during beta, with an overview/ demonstration of how user research insights were reached. In addition, the Service Team should demonstrate how the insights have been used to inform the live service.</p>	<ul style="list-style-type: none"> <li>- Updated or new user stories, personas, profiles</li> <li>- User Research Plan (Updated to reflect plan for Live)</li> </ul>	<p>This understanding should be based on valid research insights and continually developed throughout all phases of delivery. It should be clear that appropriate sense-making (synthesis and analysis of data through collaborative sense-making with other members of the team and users) has taken place following research activities. User research insights should be tracked and communicated through a range of appropriate means, this may include visual storytelling, presentations, stand-ups, hot reports etc. It's important to see the evidence base behind the insights.</p>
<p><b>Test and learn as early as possible;</b> testing with users will help you know you're delivering the right thing, for example showing prototypes to users before developing a product</p>	<p><i>Evidence that the service is being tested with users in a manner that is relevant for each phase of delivery.</i></p>	<p>The Service Team should evidence that the service is being tested with users, likely through their overview of user needs in Discovery and development of the user research plan to show what user research will take place in Alpha.</p>	<ul style="list-style-type: none"> <li>- User Research Testing Plan and Approach</li> </ul>	<p>The Service Team should provide an overview / demonstration / outputs of how the service has been tested during alpha and how this will be taken forward as improvements. This might include prototyping with test and learn commentary/analysis in alpha. A plan for user research in beta should also be evidenced.</p>	<ul style="list-style-type: none"> <li>- UAT Testing Results for Alpha</li> <li>- User Research and Testing Plan (Updated to reflect plan for Beta)</li> </ul>	<p>The Service Team should provide an overview / demonstration / outputs of any usability testing and improvements. A plan for ongoing user research as a live service should also be evidenced.</p>	<ul style="list-style-type: none"> <li>- UAT Testing Results for Beta</li> <li>- User Research and Testing Plan (Updated to reflect plan for Live)</li> </ul>	

<p><b>Share your insights;</b> communicate research findings and insights with your team and other organisations who could use them</p>	<p><i>Evidence that research and insights have been shared with the internal team.</i></p>	<p>The Service Team should evidence the methods in which user research insights were shared with the wider team during Discovery. In addition, they should provide an overview/list of stakeholders (both within the service team and other organisations) who would benefit from the user research insights, and outline how research findings will be shared.</p>	<ul style="list-style-type: none"> <li>- User Research Insight Findings and Briefings</li> <li>- List of Relevant Stakeholders (for Insight Sharing)</li> <li>- Communications Plan</li> </ul>	<p>The Service Team should evidence the methods in which user research insights were shared with the wider team and other organisations during Alpha.</p>	<ul style="list-style-type: none"> <li>- User Research Insight Briefs</li> <li>- List of Stakeholders with whom Insight Briefs were shared</li> <li>- Communications Plan</li> </ul>	<p>The Service Team should evidence the methods in which user research insights were shared with the wider team and other organisations during Beta.</p>	<ul style="list-style-type: none"> <li>- User Research Insight Briefs</li> <li>- List of Stakeholders with whom Insight Briefs were shared</li> <li>- Communications Plan</li> </ul>	<p>It should be clear that research insights are being communicated to the delivery team (and other organisations where beneficial) in a format that is useful. User research insights should be tracked and communicated through a range of appropriate means, this may include visual storytelling, presentations, stand-ups, hot reports etc. It's important to see the evidence base behind the insights.</p>
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## 2. Solve a whole problem for users

## Digital Scotland Service Standard - Minimum Evidence Framework (Agile - DSA1)

What the Project/Service Team should do	What Assessors need to see	Discovery	Sample Artefacts (Discovery)	Alpha	Sample Artefacts (Alpha)	Beta	Sample Artefacts (Beta)	Commentary
<p><b>Map the landscape.</b> Take time to understand how everything fits together - from user journeys to technology - and share this information.</p>	Evidence points for this principle are encompassed in the evidence and artefacts below.							
<p><b>Define your scope.</b> Use what you learn about users to scope your service.</p>	<p><i>Evidence of clear definition of service scope.</i></p>	<p>The Service Team should demonstrate an initial understanding of the scope of the service and the scope planned for alpha.</p>	<ul style="list-style-type: none"> <li>- Business Case including Scope</li> <li>- Agreed Statement of Work / Terms of Reference including articulation of Scope</li> </ul>					
	<p><i>Evidence of clear delivery scope in each phase of project.</i></p>	<p>The Service Team should outline the scope for delivery in Alpha, and demonstrate how this plan prioritises the most important user needs (as determined in Criteria 1).</p>	<ul style="list-style-type: none"> <li>- Prioritised Backlog</li> <li>- Sprint Plans</li> </ul>	<p>The Service Team should outline the scope for delivery in Beta, and demonstrate how this plan prioritises the most important user needs (as determined in Criteria 1). The Service Team should also indicate how successful they were in delivery of their plan for Alpha, and that they are learning lessons from this.</p>	<ul style="list-style-type: none"> <li>- Prioritised Backlog</li> <li>- Sprint Plans</li> <li>- Outcomes from Sprint Retrospectives</li> <li>- Burn-down and velocity charts</li> </ul>	<p>The Service Team should evidence that they have documented the user needs not delivered at go live, and which should be considered as continuous improvement opportunities.</p>	<ul style="list-style-type: none"> <li>- Details of user stories successfully delivered</li> <li>- Incomplete/Not Fully Delivered User Stories, and accompanying User Research materials to support the need</li> </ul>	<p>For example, service description, context diagram, logical data components list/diagram, user journey map/service blueprint annotated with data. In later stages, a security architecture view. The team should be able to explain why the scope has been defined in the way and what is considered outside the scope of the service. This point is essential for UCD, delivery and technology assessors to see, as this is the basis of the service.</p>
	<p><i>Evidence that the scope of the service is based on the user experience.</i></p>	<p>The Service team should provide an overview / list of stakeholders or user groups who are part of the wider user journey, and describe how they will be engaged in the development of the service.</p>	<ul style="list-style-type: none"> <li>- Stakeholder / User Map</li> <li>- User Personas / Profiles</li> </ul>	<p>The Service team should outline any updates to the overview / list of stakeholders or user groups who are part of the wider user journey, and demonstrate how they have been engaged in the development of the service during Alpha.</p>	<ul style="list-style-type: none"> <li>- Updated Stakeholder / User Map</li> <li>- Updated User Personas / Profiles</li> <li>- User Research / Testing Participation Data for Alpha (broken down by user group)</li> </ul>	<p>The Service team should outline any updates to the overview / list of stakeholders or user groups who are part of the wider user journey, and demonstrate how they have been engaged in the development of the service during Alpha.</p>	<ul style="list-style-type: none"> <li>- Updated Stakeholder / User Map</li> <li>- Updated User Personas / Profiles</li> <li>- User Research / Testing Participation Data for Beta (broken down by user group)</li> </ul>	

		The Service Team have undertaken service mapping to better understand the scope of the service from the user's perspective.	<ul style="list-style-type: none"> <li>- Storyboard</li> <li>- User Experience Map</li> <li>- User Journey Map</li> </ul>	The Service Team have developed their service mapping further through additional user research and testing during Alpha, and have produced a service blueprint where appropriate.	<ul style="list-style-type: none"> <li>- (Updated) Storyboard</li> <li>- (Updated) User Experience Map</li> <li>- (Updated) User Journey Map</li> <li>- Service Blueprint</li> </ul>	The Service Team have updated their service mapping and blueprint documentation where required, as a result of additional user research and testing during Beta.	<ul style="list-style-type: none"> <li>- (Updated) Storyboard</li> <li>- (Updated) User Experience Map</li> <li>- (Updated) User Journey Map</li> <li>- (Updated) Service Blueprint</li> </ul>	This is the end-to-end service and identification of users involved in delivering the service. All technology outputs should be shown in the context of the user journey. This would include any interactions with third parties or stakeholders to help deliver the service (e.g. local authority office, third sector)
<b>Understand constraints.</b> Make sure organisational constraints - like procurement, policy and legislation - are understood and communicated	<i>Evidence to demonstrate an understanding of the policy and legislation which forms the service.</i>	The Service Team should provide an overview/description of the existing policy and legislation which applies to the service, and any new policy and legislation that is likely to impact the service during development or in live.	- Briefing Note / Description of Applicable Policy and Legislation	<p>The Service Team should indicate if the policy or legislation applicable to this service has changed since Discovery, and the impact this will have on the service.</p> <p>The Service Team should demonstrate how policy teams have been involved in the development of the service and that any changes are based on research insights.</p>	<ul style="list-style-type: none"> <li>- Outline of Policy/Legislative Change since Discovery (where applicable)</li> <li>- Evidence of a Policy Liaison / Partner</li> </ul>	<p>The Service Team should indicate if the policy or legislation applicable to this service has changed since Alpha, and the impact this will have on the service.</p> <p>The Service Team should demonstrate how policy teams have been involved in the development of the service and that any changes are based on research insights.</p>	<ul style="list-style-type: none"> <li>- Outline of Policy/Legislative Change since Alpha (where applicable)</li> <li>- Evidence of a Policy Liaison / Partner</li> </ul>	Be able to articulate any known impacts of existing policy/legislation on the user experience and steps to change this. Changes may not be required, however the landscape should be understood.
	<i>Evidence to demonstrate appropriate governance is in place for the service.</i>	The Service Team should evidence that a governance framework and terms of reference exist for the service.	<ul style="list-style-type: none"> <li>- Governance Framework</li> <li>- Terms of Reference</li> </ul>	If applicable, the Service Team should highlight any updates/changes since Discovery to the governance framework or terms of reference for the service.	<ul style="list-style-type: none"> <li>- Updated Governance Framework</li> <li>- Updated Terms of Reference</li> </ul>	If applicable, the Service Team should highlight any updates/changes since Alpha to the governance framework or terms of reference for the service.	<ul style="list-style-type: none"> <li>- Updated Governance Framework</li> <li>- Updated Terms of Reference</li> </ul>	
<b>Remove barriers that will affect the service.</b> This might include working with policy professionals to update legislation.	<i>Where applicable, evidence of any changes to policy and legislation as a result of the service design, development, and use.</i>	The Service team should highlight any changes which are planned or in development to existing policy and legislation as a result of the service.	- Outline of Policy/Legislative Change as a result of Service Design and Development in Discovery (where applicable)	The Service team should highlight any changes which are planned or in development to existing policy and legislation as a result of the service.	<ul style="list-style-type: none"> <li>- Outline of Policy/Legislative Change as a result of Service Design and Development in Alpha (where applicable)</li> </ul>	The Service team should highlight any changes which are planned or in development to existing policy and legislation as a result of the service.	<ul style="list-style-type: none"> <li>- Outline of Policy/Legislative Change as a result of Service Design, Development and Use in Beta (where applicable)</li> </ul>	

<p><b>Work with other organisations.</b> Understand where you fit together as part of a user journey and work to improve the experience, for example reducing the number of times users are asked to provide the same information (while respecting their privacy)</p>	<p><i>Evidence of service interaction with other digital services (i.e. as part of an ecosystem)</i></p>	<p>The Service Team should demonstrate an awareness of how their service will interact with other digital services, where applicable. In doing so, the Service Team should show that they have considered other organisations that may be partners with whom they can share common knowledge and capabilities.</p>	<ul style="list-style-type: none"> <li>- Conceptual Architecture</li> <li>- Details of Shared/Common Capabilities</li> <li>- List of Potential Partner Organisations</li> </ul>	<p>The Service Team should highlight any additional organisations that have been identified as partners with whom they can share common knowledge and capabilities since Discovery, if applicable.</p>	<ul style="list-style-type: none"> <li>- Updated Conceptual Architecture</li> <li>- Details of Additional (since Discovery) Shared/Common Capabilities</li> <li>- Updated List of Potential Partner Organisations</li> </ul>	<p>The Service Team should highlight any additional organisations that have been identified as partners with whom they can share common knowledge and capabilities since Alpha, if applicable.</p>	<ul style="list-style-type: none"> <li>- Updated Conceptual Architecture</li> <li>- Details of Additional (since Alpha) Shared/Common Capabilities</li> <li>- Updated List of Potential Partner Organisations</li> </ul>	
	<p><i>Evidence of service pattern awareness</i></p>	<p>The Service Team should demonstrate an awareness of their service pattern, and which elements are shared / common with other services.</p>	<ul style="list-style-type: none"> <li>- Service Pattern</li> <li>- Service Decomposition Diagram</li> </ul>	<p>The Service Team should demonstrate an understanding of how their service patterns align with other services provided in Scotland/the UK. In addition, the Service Team should explain any user needs they've identified that are common to other services and how they're going to meet them in a way that's consistent with the rest of government.</p>	<ul style="list-style-type: none"> <li>- Service Patterns (including those for services with which the in-scope service will interact)</li> <li>- Service Decomposition Diagram</li> <li>- User Stories for Common Services</li> </ul>			

### 3. Design and deliver a joined-up experience

### Digital Scotland Service Standard - Minimum Evidence Framework (Agile - DSA1)

What the Project/Service Team should do	What Assessors need to see	Discovery	Sample Artefacts (Discovery)	Alpha	Sample Artefacts (Alpha)	Beta	Sample Artefacts (Beta)	Commentary
<p><b>Be responsible for the whole service, not just the digital parts.</b> Understand how people access your service and make sure you have a plan for all parts of it.</p>	<p><i>Evidence that the scope includes all channels required to deliver the service to the end user, and that the channels through which the service is delivered meet user needs.</i></p>	<p>The Service Team should show that they are aware of which channels the service is currently delivered through (where the service or an equivalent already exists), and the volume of transactions processed through each channel. Support these findings with additional qualitative user research with the service's target user groups.</p>	<ul style="list-style-type: none"> <li>- List of channels used by equivalent existing services (where available)</li> <li>- Volume of transactions by channel</li> <li>- User Needs relating to channel use</li> </ul>	<p>The Service Team should demonstrate how what they have developed for each channel meets the needs of their different user groups.</p>	<ul style="list-style-type: none"> <li>- Additional User Research regarding Channel Use conducted during Alpha (where applicable)</li> <li>- Usability Testing of End-to-End User Journeys in each Channel</li> </ul>	<p>The Service Team should demonstrate how what they have developed for each channel meets the needs of their different user groups.</p>	<ul style="list-style-type: none"> <li>- Usability Testing of End-to-End User Journeys in each Channel</li> </ul>	<p>Bearing in mind channels will in most cases involve non-digital channels (for example letters, paper forms, scripts for telephone or face-to-face meetings, operational guidance) along with digital experiences such as website guidance and online applications. Requires an articulation of the users involved to deliver the service and how their needs will be met. This should be covered by the evidence to show the scope of the service and the user needs (criteria 1 and 2), with the inclusion of the channels used to deliver the service.</p>
<p><b>Make sure the online and offline experience is the same.</b> Use consistent design patterns, such as language and style, to help people understand where they are and what they need to do.</p>	<p><i>Evidence that there is consistency across the channels users will experience as they use the service.</i></p>			<p>The Service Team should demonstrate that the offline experience (paper forms/guidance, telephony, etc.) delivers the same content and requests the same input (e.g. information, application forms, etc.) as the online experience, and that efforts have been made to ensure that the offline experience is as easy to use as online equivalents.</p>	<ul style="list-style-type: none"> <li>- Side-by-side Demonstration of Draft Offline and Online Experiences</li> </ul>	<p>The Service Team should demonstrate that the offline experience (paper forms/guidance, telephony, etc.) delivers the same content and requests the same input (e.g. information, application forms, etc.) as the online experience, and that efforts have been made to ensure that the offline experience is as easy to use as online equivalents.</p>	<ul style="list-style-type: none"> <li>- Side-by-side Demonstration of Final Versions of Offline and Online Experience</li> </ul>	

	<p><i>Evidence that consistent design patterns are used.</i></p>	<p>The Service Team should demonstrate that they are adhering to the mygov.scot toolkit and style guide where appropriate (and highlight any updates they have made to the mygov.scot patterns where required). Where not appropriate, the Service Team should outline the rationale for this, and demonstrate that their Service will be consistent with other Services offered by their organisation.</p>	<ul style="list-style-type: none"> <li>- Link to Design Patterns in Use</li> <li>- Evidence of Current Development against Design Patterns</li> <li>- Evidence of Updates to mygov.scot Design Patterns, and legitimate case for doing so</li> </ul>	<p>The Service Team should demonstrate that they are adhering to the mygov.scot toolkit and style guide where appropriate (and highlight any updates they have made to the mygov.scot patterns where required). Where not appropriate, the Service Team should outline the rationale for this, and demonstrate that their Service will be consistent with other Services offered by their organisation.</p>	<ul style="list-style-type: none"> <li>- Link to Design Patterns in Use</li> <li>- Evidence of Current Development against Design Patterns</li> <li>- Evidence of Updates to mygov.scot Design Patterns, and legitimate case for doing so</li> </ul>	<p>The Service Team should demonstrate that they are adhering to the mygov.scot toolkit and style guide where appropriate (and highlight any updates they have made to the mygov.scot patterns where required). Where not appropriate, the Service Team should outline the rationale for this, and demonstrate that their Service will be consistent with other Services offered by their organisation.</p>	<ul style="list-style-type: none"> <li>- Link to Design Patterns in Use</li> <li>- Evidence of Current Development against Design Patterns</li> <li>- Evidence of Updates to mygov.scot Design Patterns, and legitimate case for doing so</li> </ul>	<p>The approach to content, graphic and interaction design should be based on evidence and meet standards/best practice, with a focus on re-use where possible. Ideally, an organisation-wide content strategy would demonstrate the process, design principles, style guide and channels, along with content governance arrangements, which would be used for the service in development. If this doesn't exist, a service specific overview for the approach to content would suffice. How design patterns will be developed should be clearly articulated, using existing patterns where possible, making sure these meet accessibility requirements, while alternative formats (braille, large print, easy read etc.) required should be understood from user needs and included in scope of service delivery.</p>
	<p><i>Evidence that the service is responsive and works on mobile devices</i></p>			<p>The Service Team have identified relevant technology and display standards applicable to the devices that they are targeting, and are able to show how they will achieve the required levels of responsiveness and compatibility.</p>	<ul style="list-style-type: none"> <li>- Assessment of applicable design and technical standards for the end-user devices in scope.</li> <li>- User stories relating to service responsiveness across device types.</li> </ul>	<p>The Service Team should demonstrate that their service is responsive and works on the most commonly used mobile devices/browsers.</p>	<ul style="list-style-type: none"> <li>- Demonstration of Service on Mobile Device</li> </ul>	
	<p><i>Evidence that data on channel usage will be collected and used to inform continuous improvement plans.</i></p>			<p>The Service Team should detail the methods in which they will collect data on service usage by channel (including analogue channels) and device type (e.g. laptop vs tablet vs smartphone).</p>	<ul style="list-style-type: none"> <li>- Approach to Channel Usage Data Collection</li> </ul>	<p>The Service Team should detail how the channel usage data which will be collected once live will be used to inform continuous improvement plans and performance monitoring, who will be responsible for analysing this data, and how frequently this will be conducted (ideally weekly).</p>	<ul style="list-style-type: none"> <li>- Demonstration of Channel Usage Data Dashboards</li> <li>- Resource plan for Channel Usage Data monitoring and analysis (may be part of wider Resource plans)</li> </ul>	

<p><b>As the service is being designed, develop a continuous improvement plan for when the service goes live.</b> Understand where improvements can be made and plan for the future sustainability of the service.</p>	<p><i>Evidence that the delivery team is committed to continuous improvement across the entire service, based on research insight.</i></p>			<p>The Service Team should demonstrate an awareness of the need for continuous improvement of the service once live.</p>		<p>The Service Team should provide a fully resourced plan for continuous improvement activities once the service is live.</p>	<ul style="list-style-type: none"> <li>- Continuous Improvement Plan</li> <li>- Resource Plan for Continuous Improvement Team</li> </ul>	<p>It's expected that this will be demonstrated through iterative improvements as the service is developed, with a plan and resource dedicated to improvements when the service goes live.</p>
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#### 4. Help users succeed first time

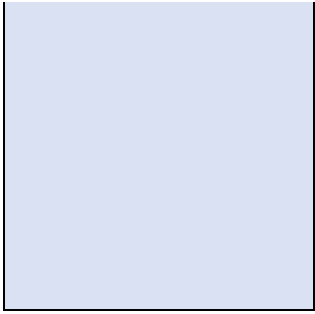
#### Digital Scotland Service Standard - Minimum Evidence Framework (Agile - DSA1)

What the Project/Service Team should do	What Assessors need to see	Discovery	Sample Artefacts (Discovery)	Alpha	Sample Artefacts (Alpha)	Beta	Sample Artefacts (Beta)	Commentary
<p><b>Usability testing:</b> Test frequently with real and potential users to understand if the service you've designed works in the way you and they would expect</p>	<p><i>Evidence that users are able to complete end-to-end user journeys, and that the findings of testing with users will translate to service improvements.</i></p>	<p>The Service Team should evidence their plans to conduct usability testing during Alpha.</p>	<p>- User Research and Testing Plan(s)</p>	<p>The Service Team should explain how usability testing was undertaken, and demonstrate that all end-to-end user journeys - including assisted digital journeys - have been tested with users. The Service Team should evidence how users with the lowest level of digital skills were included in usability testing.</p>	<ul style="list-style-type: none"> <li>- Testing Strategy</li> <li>- Usability Testing Statistics</li> <li>- Test Plans / Scripts</li> </ul>	<p>The Service Team should outline how many rounds of usability testing they've undertaken, the users involved (including those with the lowest level of digital skills), the tasks set, and the materials provided to users to support them in completing the tasks.</p>	<ul style="list-style-type: none"> <li>- Usability Testing Statistics</li> <li>- Test Plans / Scripts</li> </ul>	
				<p>The Service Team should evidence that the majority of users of their service are succeeding the first time they try to use it, and how they've used analytics and user research to reduce dropout rates for the digital service.</p>	<ul style="list-style-type: none"> <li>- Usability Testing Completion Data</li> </ul>	<p>The Service Team should evidence that the majority of users of their service are succeeding the first time they try to use it, and how they've used analytics and user research to reduce dropout rates for the digital service.</p>	<ul style="list-style-type: none"> <li>- Usability Testing Completion Data</li> </ul>	
				<p>The Service Team should explain how they've changed the interface design in response to usability testing during Alpha, showing their build, measure, and learn cycles, the hypotheses they tested, what happened and how users reacted.</p>	<ul style="list-style-type: none"> <li>- Demonstration of Interface Design Changes</li> <li>- Evidence of Usability Testing of Interface Design Changes</li> </ul>	<p>The Service Team should explain how they've changed the interface design in response to usability testing during Beta, showing their build, measure, and learn cycles, the hypotheses they tested, what happened and how users reacted.</p>	<ul style="list-style-type: none"> <li>- Demonstration of Interface Design Changes</li> <li>- Evidence of Usability Testing of Interface Design Changes</li> </ul>	

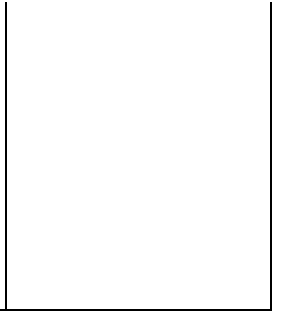
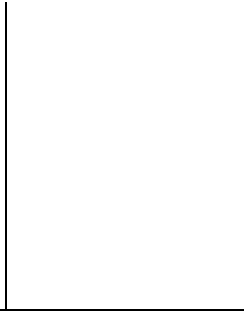
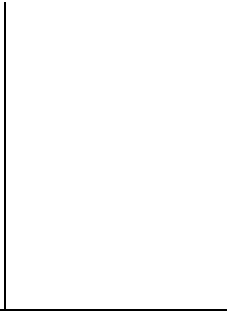
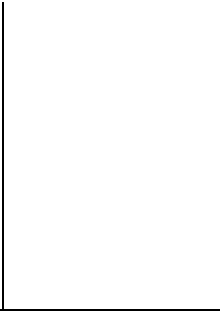
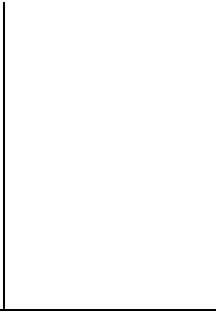
			<p>The Service Team should describe any problems identified during testing during Alpha, and how they resolved these. Where issues were not resolved, evidence of their inclusion in sprint planning for Beta should be provided (as per <i>Criteria 2</i>).</p>	<ul style="list-style-type: none"> <li>- User Stories and Bugs resulting from Usability Testing of Offline Channels</li> <li>- Demonstration of Resolutions to the above</li> <li>- Prioritised Backlog / Sprint Plans showing unresolved User Stories / Bugs, and plan to deliver these in Beta</li> </ul>	<p>The Service Team should describe any problems identified during testing during Beta, and how they resolved these. Where issues were not resolved, evidence of their inclusion in the continuous improvement backlog should be provided (as per <i>Criteria 2</i>).</p>	<ul style="list-style-type: none"> <li>- User Stories and Bugs resulting from Usability Testing of Offline Channels</li> <li>- Demonstration of Resolutions to the above</li> <li>- Details of unresolved User Stories / Bugs, the impact these will have on the user experience if not resolved before go live, and plans to resolve the same</li> <li>- Continuous Improvement Plan</li> </ul>		
			<p>The Service Team should evidence that a representative sample of team members were involved in running and observing user research and usability testing during Alpha, to ensure that lessons learned are shared with and understood by the whole team.</p>	<ul style="list-style-type: none"> <li>- Details of Service Team members involved in User Research and Usability Testing during Alpha</li> </ul>	<p>The Service Team should evidence that a representative sample of team members were involved in running and observing user research and usability testing during Beta, to ensure that lessons learned are shared with and understood by the whole team.</p>	<ul style="list-style-type: none"> <li>- Details of Service Team members involved in User Research and Usability Testing during Beta</li> </ul>		
						<p>The Service Team should outline how often they'll carry out research and usability tests as part of the continuous improvement of the live service.</p>	<ul style="list-style-type: none"> <li>- Continuous Improvement Plan</li> <li>- User Research and Testing Plan(s) for Live Service</li> </ul>	
	<p><i>Evidence that the name of the service was tested with users.</i></p>	<p>The Service Team should evidence that they tested whether the name of their service makes sense to their users.</p>	<ul style="list-style-type: none"> <li>- User Research regarding Service Name</li> </ul>	<p>Where the Service Team had not concluded the testing of the Service name during Discovery, the Service Team should evidence that they have tested that the name of their service makes sense to their users during Alpha.</p>	<ul style="list-style-type: none"> <li>- User Research regarding Service Name</li> </ul>			



<p><b>Test every part of the service:</b> Test how users will interact with all parts of the service, like online applications and letters.</p>	<p><i>Evidence that the full service has been tested across all channels.</i></p>			<p>The Service Team should explain how they undertook usability testing during Alpha across all channels, and evidence how many users were involved in testing each channel.</p>	<ul style="list-style-type: none"> <li>- Testing Strategy</li> <li>- Usability Testing Statistics (by Channel)</li> </ul>	<p>The Service Team should explain how they undertook usability testing during Beta across all channels, and evidence how many users were involved in testing each channel.</p>	<ul style="list-style-type: none"> <li>- Testing Strategy</li> <li>- Usability Testing Statistics (by Channel)</li> </ul>	
	<p><i>Evidence that systems and environments are in place to support testing of non-digital parts of the service.</i></p>			<p>The Service Team should describe where usability testing of analogue channels (e.g. letters, printed forms, telephony, etc.) resulted in challenges or new user needs being identified, and whether these have been resolved. Where issues were not resolved, evidence of their inclusion in sprint planning for Beta should be provided (as per Criteria 2).</p>	<ul style="list-style-type: none"> <li>- User Stories and Bugs resulting from Usability Testing of Offline Channels</li> <li>- Demonstration of Resolutions to the above</li> <li>- Prioritised Backlog / Sprint Plans showing unresolved User Stories / Bugs, and plan to deliver these in Beta</li> </ul>	<p>The Service Team should describe where usability testing of analogue channels (e.g. letters, printed forms, telephony, etc.) resulted in challenges or new user needs being identified, and whether these have been resolved. Where issues were not resolved, evidence of their inclusion in the continuous improvement backlog should be provided (as per Criteria 2).</p>	<ul style="list-style-type: none"> <li>- User Stories and Bugs resulting from Usability Testing of Offline Channels</li> <li>- Demonstration of Resolutions to the above</li> <li>- Details of unresolved User Stories / Bugs, the impact these will have on the user experience if not resolved before go live, and plans to resolve the same</li> <li>- Continuous Improvement Plan</li> </ul>	
	<p><b>Use automated testing:</b> Use automated end-to-end testing to ensure systems work as expected as you continually improve the service.</p>	<p><i>Evidence that automated testing has been considered, and is in place where appropriate.</i></p>	<p>The Service Team should demonstrate that they have considered the requirements for automated testing, and have a plan in place to enable these during Alpha. The Service Team should also discuss the testing technologies they intend to use, as covered in Criteria</p>	<ul style="list-style-type: none"> <li>- Testing Strategy</li> <li>- Test Plans / Scripts</li> <li>- Details of Testing Technologies</li> </ul>	<p>The Service Team should demonstrate that they have a plan in place to enable automated testing during Beta.</p>	<ul style="list-style-type: none"> <li>- Testing Strategy</li> <li>- Test Plans / Scripts</li> <li>- Details of Testing Technologies</li> </ul>	<p>The Service Team should demonstrate that they have a plan in place to enable automated testing of continuous improvement developments once live.</p>	<ul style="list-style-type: none"> <li>- Continuous Improvement Plan</li> <li>- Testing Strategy</li> <li>- Test Plans / Scripts</li> </ul>



7 (Iterate and Improve).



## 5. Make sure everyone can use the service

## Digital Scotland Service Standard - Minimum Evidence Framework (Agile - DSA1)

What the Project/Service Team should do	What Assessors need to see	Discovery	Sample Artefacts (Discovery)	Alpha	Sample Artefacts (Alpha)	Beta	Sample Artefacts (Beta)	Commentary
<p><b>Understand how users need to access your service (including delivery staff).</b> Your user research should provide a comprehensive understanding of the needs of people who will use your service.</p>	<p><i>Evidence that the Service Team has a robust understanding of the people who will use the service, including internal users.</i></p>	<p>The Service Team should demonstrate that they understand who their users are and the problem the service will solve for them.</p>	<ul style="list-style-type: none"> <li>- Documented user stories, personas, profiles</li> <li>- User Research Plan</li> <li>- User Research Statistics (breakdown of users by group)</li> </ul>	<p>Where applicable, the Service Team should identify any new user groups identified during user research during Alpha and the problem the service will solve for them.</p>	<ul style="list-style-type: none"> <li>- Documented user stories, personas, profiles</li> <li>- User Research Plan</li> <li>- User Research Statistics (breakdown of users by group)</li> </ul>	<p>Where applicable, the Service Team should identify any new user groups identified during user research during Beta and the problem the service will solve for them. The Service Team should provide an assurance that appropriate user testing has been carried out with any newly identified groups, to ensure that the live service will meet their needs.</p>	<ul style="list-style-type: none"> <li>- Documented user stories, personas, profiles</li> <li>- User Research Plan</li> <li>- User Research Statistics (breakdown of users by group)</li> <li>- User Testing Outcomes for newly identified user groups</li> </ul>	<p>This should be covered by the user needs evidence in criterion 1, against the scope of the service in criterion 2. There should be a plan in place for users who can't or won't use the digital service. Making sure disabled people can use the service includes adopting best practice across all channels and taking an inclusive and ethical approach to user research. Should be covered within the user research plan and ethics material in criterion 1. Could include Equality Impact Assessment (EQIA) from policy development as evidence.</p>
		<p>The Service Team should demonstrate that they have undertaken user research with organisations and groups which help users to access existing digital or non-digital services.</p>	<ul style="list-style-type: none"> <li>- User Research Plan</li> <li>- User Research Statistics (breakdown of users by group)</li> <li>- Documented user stories, personas, profiles provided by organisations and groups who help users to access services.</li> </ul>	<p>The Service Team should demonstrate that they have undertaken user research and testing with organisations and groups which help users to access existing digital or non-digital services during Alpha.</p>	<ul style="list-style-type: none"> <li>- User Research Plan</li> <li>- User Research and Testing Statistics (breakdown of users by group)</li> <li>- Documented user stories, personas, profiles provided by organisations and groups who help users to access services.</li> <li>- User Testing Outcomes for relevant subset of users</li> </ul>	<p>The Service Team should demonstrate that they have undertaken user testing with organisations and groups which help users to access existing digital or non-digital services during Beta.</p>	<ul style="list-style-type: none"> <li>- User Testing Statistics (breakdown of users by group)</li> <li>- User Testing Outcomes for relevant subset of users</li> </ul>	
<p><b>Show that all parts of the service are inclusive:</b> Inclusive design should cover physical space, face to face, telephone, letters and online applications.</p>	<p><i>Evidence that the service supports those with assisted digital needs (i.e. the</i></p>	<p>The Service Team should show that they have a plan in place to</p>	<ul style="list-style-type: none"> <li>- Outline/Draft Assisted Digital Support Plan</li> <li>- Design Options being considered for</li> </ul>	<p>The Service Team should explain how they've designed their assisted digital support model to</p>	<ul style="list-style-type: none"> <li>- Assisted Digital Support Model</li> <li>- Assisted Digital User Needs</li> </ul>	<p>Explain how they've tested their assisted digital support model, and what they learned by testing the model.</p>	<ul style="list-style-type: none"> <li>- User Testing Outcomes for Assisted Digital Support Model</li> </ul>	

	<i>way they plan to help people who lack the skills, confidence or internet access to complete the service on their own).</i>	support users with assisted digital needs.	Assisted Digital Support - Assisted Digital User Needs	meet user needs and how they intend to provide it - if not providing it through telephony, face-to-face, talk through and "on-behalf-of" mechanisms, the Service Team must explain why.		The Service Team should confirm that the assisted digital support for the Service will be sustainably funded and free to users, and describe how this will be achieved.	- Assisted Digital Support Model - Approved Funding/Business Case for Support Offerings	
<b>Include diverse perspectives:</b> Engage with as broad a range of people as possible with different situational needs.	<i>Evidence that the Service Team have engaged diverse stakeholders in user research and testing.</i>	The Service Team should demonstrate how they have engaged a broad range of users and stakeholders in their user research during Discovery, and describe how they recruited participants from hard to reach groups. The Service Team should outline plans to further this engagement during Alpha, both through user research and testing.	- User Research and Testing Plan - User Research Statistics (breakdown of users by group) - EQIA (Equality Impact Assessment)	The Service Team should demonstrate how they have engaged a broad range of users and stakeholders in their user research and testing during Alpha, and describe how they recruited participants from hard to reach groups. The Service Team should outline plans to further this engagement during Beta, both through user research and testing.	- User Research and Testing Plan - User Research Statistics (breakdown of users by group) - EQIA (Equality Impact Assessment)	The Service Team should demonstrate how they have engaged a broad range of users and stakeholders in their user research and testing during Beta, and describe how they recruited participants from hard to reach groups.	- User Research and Testing Plan - User Research Statistics (breakdown of users by group) - EQIA (Equality Impact Assessment)	
<b>Make sure disabled people can take part in user research:</b> User engagement should be accessible.	<i>Evidence that user engagement with disabled people has taken place.</i>	The Service Team should evidence that they have undertaken user research with disabled people during Discovery, and that they have captured any additional user needs as appropriate.	- User Research Statistics (breakout of disabled statistics) - Additional User Needs for Disabled Users	The Service Team should evidence that they have undertaken user research and testing with disabled people during Alpha, and that they have captured any additional user needs as appropriate.	- User Research and Testing Statistics (breakout of disabled statistics) - Additional User Needs for Disabled Users - User Testing Results of Disabled User Needs (where applicable)	The Service Team should evidence that they have undertaken user testing with disabled people during Beta.	- User Testing Statistics (breakout of disabled statistics) - User Testing Results of Disabled User Needs (where applicable)	

<p><b>Use simple language.</b> Make sure the information to support your service is designed to meet the minimum reading age.</p>	<p><i>Evidence that efforts have been made to reduce the reading age across all channel content, aiming for an average reading age 9-11 (which is based on national literacy levels).</i></p>	<p>The Service Team should demonstrate their intent to lower reading age and use simple language across the delivery of this Service.</p>	<p>- Communications Plan - Content Plan</p>	<p>The Service Team should demonstrate that their service materials (both online and offline) and associated communications reflect an average reading age of 9-11, and evidence any changes made to language - either as a result of usability testing during Alpha or otherwise - to ensure accessibility and understanding by all user groups.</p>	<p>- Reading Age Assessment Results for All Service Materials - Usability Testing Results and Changes relating to Language / Accessibility</p>	<p>The Service Team should demonstrate that their service materials (both online and offline) and associated communications reflect an average reading age of 9-11, and evidence any changes made to language - either as a result of usability testing during Beta or otherwise - to ensure accessibility and understanding by all user groups.</p>	<p>- Reading Age Assessment Results for All Service Materials - Usability Testing Results and Changes relating to Language / Accessibility</p>	<p>Channels being letters, paper forms, scripts, operational guidance and digital experiences such as web guidance and online applications. Content is developed based on particular insights from user research in criteria 1. How users comprehend information and guidance to support the end service should be tested throughout development. The end service should not have complex terminology, with difficult concepts explained using simple language. This can be tested using readability tools.</p>
<p><b>Commit to testing the accessibility and inclusivity of your service.</b> This includes accessibility testing and designing access to the service for those who cannot use digital means.</p>	<p><i>Evidence that the full service is being designed and developed to be accessible by people with impairments.</i></p>	<p>The Service Team should ensure that provisions are made within the user research plan (see Criteria 1) to address accessibility. An accessibility plan/approach - including a budget if testing is not being undertaken by the Service Team - that covers the scope of the full service and meets legal requirements should be evidenced.</p>	<p>- User Research Plan: Accessibility Provision (including all legal accessibility requirements)</p>	<p>The Service Team should evidence how they have undertaken user research and testing during Alpha in-line with their commitment to accessibility and inclusivity set out in the User Research Plan through a sample of their findings and test results.</p>	<p>- Evidence of Accessibility User Research undertaken in Alpha - Evidence of Accessibility Testing in Alpha</p>	<p>The Service Team should evidence that they have undertaken further accessibility and inclusivity-focused user research and testing in Beta, and demonstrate that testing throughout the development of the service has covered the end-to-end service, all channels, and all user groups (including those who are unable to use digital channels).</p>	<p>- Evidence of Accessibility User Research undertaken in Beta - Evidence of Accessibility Testing in Beta</p>	<p>This is based on the development of the user needs and testing with users through each phase.</p> <p>An understanding of the relevant legislation and standards, for example:</p> <ul style="list-style-type: none"> <li>• The Public Sector Bodies (Websites and Mobile Applications)(No. 2) Accessibility Regulations 2018</li> <li>• Equality Act 2010</li> <li>• W3C Web Content Accessibility Guidelines 2.1</li> <li>• British Sign Language (Scotland) Act 2015</li> </ul>
				<p>The Service Team should demonstrate that they have used accessible design patterns, in line with the requirements of Criteria 3.</p>	<p>- Examples of Accessible Design Patterns - Demonstration of how service follows the above Patterns</p>			
						<p>The Service Team should evidence that users find it obvious how to request alternative formats or support to access the service.</p>	<p>- Evidence of Accessibility Testing demonstrating that Alternative Format and Support to</p>	<p>It's important that there's provision within any procurements for accessibility compliance. Any 3rd party service components should meet accessibility requirements.</p>

							Access the Service are clearly understood.	
							The Service Team should evidence that they have completed an Accessibility Statement, in-line with regulations.	
				The Service Team should evidence that they have undertaken an Accessibility Audit on the full Service, and that they have a plan to resolve any issues flagged during Beta.	- Accessibility Audit - Accessibility Audit follow-up plans for Beta	The Service Team should evidence that they have completed their plan to resolve any Accessibility Audit concerns flagged during Alpha, and that they have undertaken a new Accessibility Audit on the full Service during Beta which has not flagged any further concerns.	- Accessibility Audit (must be passed without major blockers)	
<b>Set a measurable target for accessibility:</b> Establish what you need to measure and set targets for meeting accessibility requirements.	<i>Evidence that the Service Team have set targets to measure the accessibility of their Service.</i>	The Service Team should evidence that they have agreed on a series of Kepis for measuring how their Service meets accessibility requirements, and engagement with users with impairments during the design and development of the Service.	- User Research Plan: Accessibility Provision - Accessibility KPIs	The Service Team should outline their progress/performance against their accessibility targets, and demonstrate plans to improve where falling short.	- Accessibility KPI Dashboard - User Research Plan: Accessibility Provision - Accessibility Testing Plan	The Service Team should outline their progress/performance against their accessibility targets, and demonstrate plans to improve where falling short.	- Accessibility KPI Dashboard - User Research Plan: Accessibility Provision - Accessibility Testing Plan	

<p><b>Do accessibility testing with real users:</b> Making sure this is done in an environment they are comfortable with.</p>	<p><i>Evidence that accessibility testing is being undertaken in 'real-world' environments.</i></p>	<p>The Service Team have planned to undertake accessibility testing in Alpha.</p>	<p>- Accessibility Testing Plan</p>	<p>The Service Team have undertaken accessibility testing in Alpha, and have a plan to undertake further accessibility testing in Beta. Accessibility testing undertaken will ideally be undertaken on users' own equipment, to ensure the Service performs as expected in 'real-world' environments.</p>	<p>- Evidence of Accessibility Testing in Alpha - Accessibility Testing Plan (updated for Beta)</p>	<p>The Service Team have undertaken accessibility testing in Beta, and have considered how they will undertake further accessibility testing of improvements once live as part of the Continuous Improvement Plan. Accessibility testing undertaken will ideally be undertaken on users' own equipment, to ensure the Service performs as expected in 'real-world' environments.</p>	<p>- Evidence of Accessibility Testing in Beta - Continuous Improvement Plan Accessibility Testing Provision</p>	
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## 6. Have a multidisciplinary team

## Digital Scotland Service Standard - Minimum Evidence Framework (Agile - DSA1)

What the Project/Service Team should do	What Assessors need to see	Discovery	Sample Artefacts (Discovery)	Alpha	Sample Artefacts (Alpha)	Beta	Sample Artefacts (Beta)	Commentary
<p><b>Make sure the team has the right mix of skills:</b> Build a team based on the needs of the service and stage of delivery, co-located as far as possible.</p>	<p><i>Evidence that a fully resourced and appropriately skilled team has been put in place, and that a separation of duties exists for key roles (service manager, product manager, delivery manager, and user researcher).</i></p>	<p>The Service Team should outline the make-up of the team (in terms of number of resources, FTE, and skills) highlighting any skill gaps during Discovery, and evidence an agreed resourcing plan for Alpha. Assessors should expect some of the following roles to be evidenced against the DDaT framework: service manager, product manager, product manager, delivery manager, technical architect, assisted digital lead, designer, user researcher, developer, content designer, web operations engineer, performance analyst, front-end developer, lead tester</p>	<p>- Resource Plan (as it was for Discovery and as planned for Alpha)</p>	<p>The Service Team should outline the make-up of the team (in terms of number of resources, FTE, and skills) highlighting any skill gaps during Alpha, and evidence an agreed resourcing plan for Beta. Assessors should expect some of the following roles to be evidenced against the DDaT framework: service manager, product manager, product manager, delivery manager, technical architect, assisted digital lead, designer, user researcher, developer, content designer, web operations engineer, performance analyst, front-end developer, lead tester</p>	<p>- Resource Plan (for Alpha and Beta)</p>	<p>The Service Team should discuss the make-up of the team (in terms of number of resources, FTE, and skills) highlighting any skill gaps during Beta, and evidence an agreed resourcing plan for cutover to Live. Assessors should expect some of the following roles to be evidenced against the DDaT framework: service manager, product manager, product manager, delivery manager, technical architect, assisted digital lead, designer, user researcher, developer, content designer, web operations engineer, performance analyst, front-end developer, lead tester</p>	<p>- Resource Plan (for Beta and cutover to Live)</p>	<p>Evidence that outlines resourcing strategy and plans should demonstrate that there is a deep understanding of the skills required to develop and deliver the technical solutions required by the Service.</p> <p>[This should cross reference the other criteria that mention specific specialist skills e.g. performance management, UR etc.]</p>
<p><b>Make sure the team covers all aspects of the service:</b> Making sure the expertise is in place to look at offline and online channels and the backend systems the service will need to integrate with.</p>	<p><i>Evidence that resource has been allocated appropriately to ensure consistency of Service design and usability across all areas of the user journey, and all channels.</i></p>	<p>The Service Team should discuss/outline how the team have been allocated/utilised during Discovery across the full Service design and channels.</p>	<p>- Resource Plan - Team Schedule</p>	<p>The Service Team should discuss/outline how the team have been allocated/utilised during Alpha across the full Service design and channels.</p>	<p>- Resource Plan - Team Schedule</p>	<p>The Service Team should discuss/outline how the team have been allocated/utilised during Beta across the full Service design and channels.</p>	<p>- Resource Plan - Team Schedule</p>	<p>Unlike the principle and evidence point above, this area looks at how the resource has been allocated appropriately across workstreams / channels / user needs, to ensure consistency in the quality and usability of the end-to-end service across all channels.</p>



<p><b>Establish ways of working:</b> Help the team understand what's being delivered, making sure team members know how to work together and manage their day-to-day work.</p>	<p><i>Evidence of effective communication across delivery - including team ceremonies and wider organisation governance.</i></p>	<p>The Service Team should discuss their chosen delivery methodology, working practices (e.g. daily stand-ups, etc.) and communication practices.</p>	<p>- Delivery methodology: Team Ways of Working, Roles and Responsibilities, standard ceremonies, project charter, etc.</p>	<p>The Service Team should present evidence of their chosen delivery methodology, provide examples of their communications practices in operation, and highlight any changes they have made to the overall methodology to improve delivery.</p>	<p>- Delivery methodology: Team Ways of Working, Roles and Responsibilities, standard ceremonies, project charter, etc.</p>	<p>The Service Team should present evidence of their chosen delivery methodology, provide examples of their communications practices in operation, and highlight any changes they have made to the overall methodology to improve delivery.</p>	<p>- Delivery methodology: Team Ways of Working, Roles and Responsibilities, standard ceremonies, project charter, etc.</p>	<p>As part of the evidence that the Service Team presents to outline their delivery methodology, illustrative examples should include planning, improving pace of delivery, understanding when a product is done or a milestone met, communications practices and methods for continually improving performance. Demonstrate an understanding of the different types of insights that are generated across the multidisciplinary team and how they are managed into the pipeline and on to delivery.</p>
<p><b>Promote co-production:</b> Include all parts of the team (for example policy and frontline advisors) in the definition of user needs and decision-making.</p>	<p><i>Evidence that all parts of the team (for example policy and frontline advisors) were involved the definition of user needs and decision-making.</i></p>	<p>The Service Team should demonstrate how policy and frontline advisor teams (or others, where applicable) have been involved in the design of the service.</p>	<p>- Evidence of Policy / Frontline Advisor / Other involvement (e.g. related user stories, user needs, etc)</p>	<p>The Service Team should demonstrate how policy and frontline advisor teams (or others, where applicable) have been involved in the design, development and testing of the service.</p>	<p>- Evidence of Policy / Frontline Advisor / Other involvement (e.g. related user stories, user testing, etc)</p>	<p>The Service Team should demonstrate how policy and frontline advisor teams (or others, where applicable) have been involved in the development and testing of the service.</p>	<p>- Evidence of Policy / Frontline Advisor / Other involvement (e.g. related user stories, user testing, etc)</p>	
<p><b>Provide access to expertise where needed.</b> Bring in specialist knowledge to cover gaps in the team.</p>	<p><i>Evidence that the team have identified and obtained commitment to appoint the resource required for each stage. This could include: domain knowledge (e.g. agency/policy-specific), technical knowledge (e.g. solution/architecture-specific), data SMEs, etc.</i></p>	<p>The Service Team should evidence where they have identified and obtained specialist resource to support their delivery plan during Discovery (where applicable). Looking forward to Alpha, the Service Team should evidence that they have identified the specialist roles required to deliver their plans.</p>	<p>- Resource Plan showing clear alignment to the Delivery Plan for Alpha, highlighting specialist resource requirements with commentary on how this will be achieved - List of specialist resources (may be part of Resource Plan) used during Discovery - Identification of specialist resource gaps during Discovery and mitigating actions to overcome these going forward</p>	<p>The Service Team should evidence where they have identified and obtained specialist resource to support their delivery plan during Alpha (where applicable). Looking forward to Beta, the Service Team should evidence that they have identified the specialist roles required to deliver their plans.</p>	<p>- Resource Plan showing clear alignment to the Delivery Plan for Beta, highlighting specialist resource requirements with commentary on how this will be achieved - List of specialist resources (may be part of Resource Plan) used during Alpha - Identification of specialist resource gaps during Alpha and mitigating actions to overcome these going forward</p>	<p>The Service Team should evidence where they have identified and obtained specialist resource to support their delivery plan during Beta (where applicable).</p>	<p>- List of specialist resources (may be part of Resource Plan) used during Beta - Identification of specialist resource gaps during Beta.</p>	<p>Governance structures should demonstrate that the team understand and articulate the skills that will be required at each stage and identified options for sourcing the individuals. Service Teams should show the model that will be used to hand the Service into BAU in a sustainable manner.</p>

<p><b>Create a sustainable team to manage the service.</b> Move key roles in the team to permanent staff (reducing reliance on contractors and third party suppliers) as the service goes into production.</p>	<p><i>Evidence that a sustainable team will be in place post go-live</i></p>			<p>The Service Team should provide evidence that plans have been made for the effective resourcing of a sustainable team to support the service in production</p>	<p>- Evidence of planning and resource requests made for a sustainable post Go Live service team</p>	<p>The Service Team should provide evidence that the team that will be supporting the service in production is sustainable</p>	<p>- Resource Plan for Post Go-Live</p>	
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## 7. Iterate and improve frequently

## Digital Scotland Service Standard - Minimum Evidence Framework (Agile - DSA1)

What the Project/Service Team should do	What Assessors need to see	Discovery	Sample Artefacts (Discovery)	Alpha	Sample Artefacts (Alpha)	Beta	Sample Artefacts (Beta)	Commentary
<b>Get your service in front of real users as soon as possible:</b> Observe and collect data on how they use it, iterating the service based on what you've learned.	<i>Evidence points for this principle are encompassed in the evidence and artefacts below, and in Criteria 4 (Help Users Succeed).</i>							
<b>Plan for continuous improvement.</b> Make sure you have the capacity, resources and technical flexibility to iterate and improve the service, both in delivery and when you go live.	<i>Evidence that the Service has put in place governance structures to ensure improvement on a continual basis</i>	The Service Team should outline how they undertook re-prioritisation during Discovery (i.e. discuss the process of backlog prioritisation, sprint planning, etc.), and whether they intend on continuing the same practices during Alpha.	- Delivery methodology: Team Ways of Working, Standard Ceremonies, etc. - Revised Delivery / Sprint Plans for Alpha	The Service Team should outline how they undertook re-prioritisation during Alpha (i.e. discuss the process of backlog prioritisation, sprint planning, etc.), and whether they intend on continuing the same practices during Beta.	- Delivery methodology: Team Ways of Working, Standard Ceremonies, etc. - Revised Delivery / Sprint Plans for Beta	The Service Team should outline how they undertook re-prioritisation during Beta (i.e. discuss the process of backlog prioritisation, sprint planning, etc.), and whether they intend on continuing the same practices when continuously improving the live service.	- Delivery methodology: Team Ways of Working, Standard Ceremonies, etc. - Continuous Improvement Plan	Materials presented should identify is responsible for generating the insights from across the Service Team, who is responsible for accepting them into the backlog.
	<i>Evidence that the Service is designed in a way that can implement change frequently.</i>	The Service Team should be able to <b>explain</b> how they are planning to build a Service which is not constrained or time-limited, and can be continuously improved during Service Development and once live.	- Delivery methodology - iteration and increments delivered during Discovery, and plan for Alpha - Technical design approach	The Service Team should be able to <b>evidence</b> that the way they are building the Service is not constrained or time-limited, and can be continuously improved during Service Development and once live.	- Delivery methodology - iteration and increments delivered during Alpha, and plan for Beta - Technical design approach	The Service Team should be able to <b>evidence</b> that the way they are building the Service is not constrained or time-limited, and can be continuously improved once live.	- Delivery methodology - iteration and increments delivered during Beta, and plan for Continuous Improvement once live - Technical design approach	The Service team should be able to identify the tools and techniques they use to build their service in an iterative manner. This should include both the Service Design principles and the approaches to the technology build.

	<i>Evidence that live Service is free of major technical debt / unfixed bugs.</i>					The Service Team should demonstrate that they have solved any technical problems identified during Discovery, Alpha, and Beta, and that the senior sponsor / responsible owner has accepted the level of bug fixing and technical debt being carried through to the live service.	<ul style="list-style-type: none"> <li>- Evidence of Bug Fixing (proportion of bugs raised that are closed)</li> <li>- Report on Outstanding Technical Debt/Bug Fixing</li> <li>- Continuous Improvement Plan (focus on plan to resolve technical debt)</li> </ul>	
<b>Prioritise improvements.</b> Work with your organisation to focus on improvements that have the most value.	<i>Evidence that the team has used data, user and key stakeholder insights to prioritise development work in areas of greatest value to users</i>	The Service Team should discuss how they prioritised user needs/stories during the development of the Service in Discovery, and point to specific data / insights from user research (including with your organisation) which supports this.	<ul style="list-style-type: none"> <li>- Prioritised User Needs &amp; Stories</li> <li>- User Needs Matrix</li> <li>- Supporting User Research Data / Insights</li> </ul>	The Service Team should discuss how they prioritised user needs/stories and improvements to existing functionality during the development of the Service in Alpha, and point to specific data / insights from user research (including with your organisation) which supports this.	<ul style="list-style-type: none"> <li>- Prioritised User Needs &amp; Stories</li> <li>- User Needs Matrix</li> <li>- Supporting User Research Data / Insights</li> </ul>	<p>The Service Team should discuss how the Service has been further developed during Beta, and that the minimum viable product delivered to live will meet the highest priority user needs/stories, pointing to specific data / insights from user research (including with your organisation) which support this.</p> <p>The Service Team should identify priority user needs/stories to be developed as part of the continuous improvement of the service post-go live, pointing to specific data / insights from user research (including with your organisation) to support their prioritisation.</p>	<ul style="list-style-type: none"> <li>- Prioritised User Needs &amp; Stories</li> <li>- User Needs Matrix</li> <li>- Supporting User Research Data / Insights</li> </ul>	
<b>Build using continuous delivery techniques.</b> Use technologies and tools like a delivery pipeline and automated testing that allow you to change and release your service frequently.	<i>Evidence that technologies and tools are in place to support frequent changes and releases to your Service</i>	The Service Team should outline their choices of agile development and testing technologies and tools, and how these will enable frequent iterative improvements to the Service during Alpha, Beta, and once live.	<ul style="list-style-type: none"> <li>- Demonstration / list of agile development and testing technologies and tools.</li> </ul>	The Service Team should discuss any changes to their agile development and testing technologies and tools during Alpha, why these changes were made, and how they will enable frequent iterative improvements to the Service once live.	<ul style="list-style-type: none"> <li>- Demonstration / list of agile development and testing technologies and tools.</li> </ul>	The Service Team should discuss any changes to their agile development and testing technologies and tools during Beta, why these changes were made, and how they will enable frequent iterative improvements to the Service once live.	<ul style="list-style-type: none"> <li>- Demonstration / list of agile development and testing technologies and tools.</li> </ul>	

			the Service during Beta, and once live.				
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## 8. Create a secure service which protects users' privacy

## Digital Scotland Service Standard - Minimum Evidence Framework (Agile - DSA1)

What the Project/Service Team should do	What Assessors need to see	Discovery	Sample Artefacts (Discovery)	Alpha	Sample Artefacts (Alpha)	Beta	Sample Artefacts (Beta)	Commentary
<b>Work with business and information risk teams.</b> Take advice from senior information risk owners (SIROs), information asset owners (IAOs) and data guardians to make sure the service meets security requirements and regulations without putting delivery at risk.	<i>Evidence of business and information governance input/buy-in.</i>	The Service Team should evidence that they have identified the business and information governance stakeholders for the Service.	- Organisational Chart / List of Business and Information Governance Stakeholders confirmed via programme board or other such governance	The Service Team should demonstrate that business and information governance stakeholders have been actively engaged in the design of security for the Service.	- Organisational Chart / List of Business and Information Governance Stakeholders - Evidence of Consultation with / input from Business and Information Governance Stakeholders regarding the service's security design / requirements.	The Service Team should demonstrate that business and information governance stakeholders have been involved in securing the service and are in agreement with the approach taken. The Service Team should also indicate that these stakeholders are committed to ongoing involvement in securing the live service.	- Organisational Chart / List of Business and Information Governance Stakeholders - Evidence of Consultation with / input from Business and Information Governance Stakeholders regarding the service's security design / requirements. - Evidence of Business and Information Governance Stakeholder sign-off on security of service. - Plans for Securing Live Service, including details of stakeholders responsible	
	<i>Evidence of applicable Legislation, Policy, and Guidance (LP&amp;G) and implications.</i>	The Service Team should demonstrate that they have consulted with legal / policy teams to develop an awareness of the legislation, guidance, and policy that is applicable to their service to make sure it is secure.	- Overview/List/Table of Legislation / Guidance / Policy relating to Security of Service - Evidence of consultation with legal / policy specialists in this area to inform Service Team views on LP&G and implications	The Service Team should discuss their plan for meeting the security requirements set out in legislation/guidance/policy during Beta, if not already complete.	- Plan for / Details of Service Security Approach	The Service Team should evidence that their Service meets the security requirements set out in legislation/guidance/policy.	- Evidence of Service Security Audit / Sign-Off - Impact Assessment Documentation	
<b>Approach risk in a proportionate way.</b> Identify security and privacy threats to the service and have a robust, proportionate approach to managing fraud and security risks.	<i>Evidence of agreed approach to security risk management.</i>	The Service Team should demonstrate that they have a plan in place to identify threats and risks to the service, and an approach for addressing these.	- Evidence of plan to develop Security Risk Approach during Alpha (user story, backlog item)	The Service Team should evidence a well-defined approach to security risk management throughout development.	- Description of Security Risk Approach - Evidence of appropriateness (proportionality, robustness) of approach for this Service	The Service Team should evidence a well-defined approach to security risk management for the live service.	- Description of Security Risk Approach (updated in Beta and ready to operationalise in live)	

	<p><i>Evidence of risk identification and analysis.</i></p>	<p>The Service Team should demonstrate an understanding of what is required to ensure the service, as developed at Alpha, is secure, identifying what data and user data (if any) they'll be collecting, and what threats and risks exist.</p>	<ul style="list-style-type: none"> <li>- Identified Threats, Risks, Impact and Likelihood (may take the form of a risk matrix)</li> <li>- Evidence of mitigations / plans to mitigate each threat/risk identified.</li> </ul>	<p>The Service Team should demonstrate an understanding of what is required to ensure the service, as developed at Beta, is secure, identifying what data and user data (if any) they'll be collecting, and what threats and risks exist. The Service Team should also discuss any risks encountered during Alpha, and how these were mitigated.</p>	<ul style="list-style-type: none"> <li>- Identified Threats, Risks, Impact and Likelihood (may take the form of a risk matrix) - should be updated from Discovery</li> <li>- Evidence of mitigations / plans to mitigate each threat/risk identified.</li> </ul>	<p>The Service Team should detail the actions taken during Beta to ensure the security of the live service, including identifying what data and user data (if any) will be collecting, and what threats and risks exist (including potential pathways for hackers, and the fraud vectors that exist). The Service Team should also discuss any risks encountered during Beta, and how these were mitigated.</p>	<ul style="list-style-type: none"> <li>- Identified Threats, Risks, Impact and Likelihood (may take the form of a risk matrix) - should be updated from Alpha</li> <li>- Evidence of mitigations / plans to mitigate each threat/risk identified.</li> </ul>	
	<p><i>Evidence of controls in place to address risks.</i></p>			<p>The Service Team should explain the controls that have been designed to protect the service against identified threats and risks.</p>	<ul style="list-style-type: none"> <li>- Evidence of Proportionate Security Controls (may be expressed as non-functional requirements, user stories, etc.)</li> <li>- Security Architecture View</li> </ul>	<p>The Service Team should demonstrate that what the Service they have developed will deter cyber attack, hackers and fraud, and explain the controls that have been designed to protect the service against identified threats and risks.</p>	<ul style="list-style-type: none"> <li>- Evidence of Proportionate Security Controls (may be expressed as non-functional requirements, user stories, etc.)</li> <li>- Security Architecture View</li> <li>- Evidence that Residual Risk is Acceptable and Signed-Off by Senior Sponsors</li> <li>- Penetration Testing Results</li> <li>- IT Healthcheck Results</li> </ul>	
	<p><i>Evidence that tools/technologies used in development of service are secure.</i></p>	<p>The Service Team should explain what tools/technologies will be used to develop and test the Service during Alpha and how these will be secured. This must include performance and analytics tools.</p>	<ul style="list-style-type: none"> <li>- Description of Tools/Technologies and how these will be secured.</li> <li>- Tools/technologies with a level of risk should also be included in the risk matrix (see above)</li> <li>- Approval of tools/technologies being used from security perspective.</li> </ul>	<p>The Service Team should explain what tools/technologies will be used to develop and test the Service during Beta and how these will be secured. This must include performance and analytics tools.</p>	<ul style="list-style-type: none"> <li>- Description of Tools/Technologies and how these are/will be secured.</li> <li>- Tools/technologies with a level of risk should also be included in the risk matrix (see above)</li> <li>- Approval of tools/technologies being used from security perspective.</li> </ul>			
<p><b>Protect users' personal information.</b> Collect and process users' personal information in a way that's secure and respects their privacy.</p>	<p><i>Evidence of approach for protection personal data.</i></p>	<p>The Service Team should show that they have a plan for protecting personal data and have completed a data protection impact assessment screening checklist. The Service Team</p>	<ul style="list-style-type: none"> <li>- Data protection Impact Assessment Screening Checklist</li> <li>- Strategy / Plan for Personal Data Protection</li> </ul>	<p>The Service Team should present their Alpha data protection impact assessment and explain how they arrived at it. The Service Team should also evidence a clear privacy and cookie policy for the service, and describe how it was defined and agreed.</p>	<ul style="list-style-type: none"> <li>- Alpha Data Protection Impact Assessment</li> <li>- Privacy and Cookie Policies</li> </ul>	<p>The Service Team should present their Beta data protection impact assessment and explain any changes since Alpha.</p>	<ul style="list-style-type: none"> <li>- Beta Data Protection Impact Assessment</li> </ul>	

		should also evidence a plan to develop their privacy and cookie policies / statement during Alpha.						
<b>Test your systems.</b> Ensure appropriate security assurance is conducted during development and operations on a continuous basis. Carry out appropriate vulnerability and penetration testing and treat identified risks appropriately.	<i>Evidence of appropriate security testing.</i>			The Service Team should show that they have a plan for appropriately addressing secure development and security testing. This should have been developed in consultation with / with involvement from the relevant security team(s).	- Plan / Approach for Secure Development and Security Testing during Alpha and Beta. - Evidence of Security Team Consultation/Involvement	The Service Team should provide evidence of penetration/security healthcheck testing and remediation of significant issues. The Service Team should also explain how security testing will be undertaken in a continuous way as the service is updated in future.	- Penetration Testing Results - IT Healthcheck Results - Remediation Approach - User Stories / Acceptance Criteria / etc. relating to Remediation of Significant Issues - Continuous Improvement Plan (relating to Security Testing)	
<b>Make security sustainable.</b> Plan and budget to manage security during the life of the service, for example by responding to new threats, putting controls in place and applying security patches to software.	<i>Evidence of effective operational security.</i>	The Service Team should demonstrate an understanding that security needs to be part of the sustainable digital service in later phases, and evidence a plan for appropriately addressing operational security needs during Alpha.	- Plan / Resourcing for Operational Security Needs in Alpha	The Service Team should evidence a plan for appropriately addressing operational security needs during Beta. This should have been developed in consultation with / with involvement from the relevant security team(s).	- Plan / Resourcing for Operational Security Needs in Beta - Evidence of Security Team Consultation/Involvement	The Service Team should explain how they plan to keep up to date about threats to their Service, and how to deal with them, and provide evidence of a well defined approach for on-going operational security management.	- Plan / Resourcing for Operational Security Management in Live	



## 9. Define what success looks like and publish performance data

## Digital Scotland Service Standard - Minimum Evidence Framework (Agile - DSA1)

<p><b>Map to the national outcomes in Scotland's National Performance Framework.</b> Describe which national indicators your service contributes to.</p>	<p><i>Evidence that the Service is aligned with Scotland's National Performance Framework (SNPF).</i></p>	<p>The Service Team should evidence their mapping of SNPF to the Service, and identify the applicable indicators.</p>	<p>-List of indicators and description of impact</p>	<p>The Service Team should provide examples of how the Service is being built in alignment with SNPF outcomes.</p>	<p>- (updated) List of indicators and description of impact</p>			
<p><b>Understand what success looks like for your service.</b> Identify metrics which will tell you what's working and what can be improved.</p>	<p><i>Evidence that the Service has identified what success will look like for their delivery and uses those principles to define priorities for delivery.</i></p>	<p>The Service Team should outline the success criteria for this Service, and how this aligns to the applicable policy intent, including user needs. The Service Team should evidence thinking regarding the data points which could be used to monitor these criteria.</p>	<p>- Data points selected to monitor success - Review of how the data points have performed at Discovery</p>	<p>The Service Team should demonstrate that they have developed a final set of data points / KPIs to measure the success criteria outlined in Discovery, and evidence how this data is being collected to capture insights and feed them back into the backlog for continuous improvement.</p>	<p>- Insights collected from data points during Alpha, and how these contributed to the backlog</p>	<p>The Service Team should demonstrate where delivery has been prioritised based on user insights or other qualitative/quantitative insights to ensure success metrics are met.</p>	<p>- Insights collected from data points during Beta, and how these contributed to the backlog</p>	<p>The Service Team should share the specific KPI data points that they are using within a particular phase and identify how they have been used to drive forward the design and/or delivery of the product. This could include examples from the backlog e.g. how an exemplar story has been developed on the basis of performance data, performance dashboard metrics or artefacts used in the wider governance structures for the product.</p>
<p><b>Use a wide range of data to make improvements.</b> Collect and use performance data from different sources, both online and offline.</p>	<p><i>Evidence points for this principle are encompassed in the evidence and artefacts for Criteria 7 (Iterate and Improve).</i></p>							

<p><b>Continually review the performance of the service.</b> Use data to make decisions about how to fix problems and improve the service.</p>	<p><i>Evidence that the Service uses performance and management information to continually monitor the Service as it is developed and delivered.</i></p>					<p>The Service Team should be able to present evidence that the product has been built with performance management as an integral feature. This may include for example, on site analytics.</p>	<p>- Performance Management Dashboard</p>	
<p><b>Improve your management information over time.</b> Review and improve your metrics and data collection practices as you learn more about user needs.</p>	<p><i>Evidence that the Service Team have reviewed and enhanced their management information KPIs where appropriate.</i></p>			<p>The Service Team should discuss any changes made during Alpha to the management information collected for the Service.</p>	<p>- Updates to Data points selected to monitor success (where applicable)</p>	<p>The Service Team should discuss any changes made during Beta to the management information collected for the Service.</p>	<p>- Updates to Data points selected to monitor success (where applicable)</p>	
<p><b>Publish data to help inform and improve future government services.</b> Publishing information about your service will help government be open, accountable and make evidence-based decisions on future services.</p>	<p><i>Evidence that the Service Team publish data that will help improve future government services.</i></p>	<p>The Service Team should outline their intent to publish data about their Service performance (e.g. efficiency, use, etc.).</p>	<ul style="list-style-type: none"> <li>- User Stories relating to Service Performance Data Publication</li> <li>- Service Performance KPIs / Data Points to be published</li> <li>- Evidence of engagement with stakeholders responsible for performance data publication / platforms (e.g. statistics.gov)</li> </ul>	<p>The Service Team should evidence their choice of platform for publishing data about their Service performance (e.g. statistics.gov, etc.)</p>	<ul style="list-style-type: none"> <li>- User Stories relating to Service Performance Data Publication</li> <li>- User Stories relating to Performance Platform integration (where applicable)</li> <li>- Evidence of engagement with stakeholders responsible for performance data publication / platforms (e.g. statistics.gov)</li> </ul>	<p>The Service Team should evidence that their Service performance information will be published, and that this has been tested.</p>	<p>- UAT and Integration Testing results relating to Service Performance Data Publication and Platform</p>	<p>The Service Team should present evidence that they have identified appropriate channels for sharing the data that is generated through the delivery of their service. Depending on the Service this may range from publishing data online through to sharing through internal government networks.</p>

## 10. Choose the right tools and technology

## Digital Scotland Service Standard - Minimum Evidence Framework (Agile - DSA1)

What the Project/Service Team should do	What Assessors need to see	Discovery	Sample Artefacts (Discovery)	Alpha	Sample Artefacts (Alpha)	Beta	Sample Artefacts (Beta)	Commentary
<p><b>Understand the technologies needed to deliver the service.</b> Work out the different components required to build and operate the service.</p>	<p><i>Evidence of understanding of service context</i></p>	<p>The Service Team should show they understand the users' needs and full scope of service, so that an appropriate technical solution can be designed.</p>	<p>- Context diagram or list of users and interfaces</p>	<p>The Service Team should show they understand the overall context the technology system needs to operate within.</p>	<p>- Logical Architecture Specification and Diagram indicating integration with existing systems - interfaces, data flow</p>			
	<p><i>Evidence of decomposing the service into components / building blocks</i></p>	<p>The Service Team should explain the approach being taken for decomposing the service into building blocks and identifying the building blocks needed for Alpha. This should include a high level understanding of the data used by the service.</p>	<p>- Logical architecture diagram showing functional decomposition. - Evidence of why this decomposition was chosen e.g. loose coupling, bounded context, existing landscape, re-use, integrations etc.</p>	<p>The Service Team should show how they've identified the building blocks used for Alpha and how this will change in Beta, explaining the approach for deconstructing the service into building blocks and how successful this has been. The Service Team should also explain the data to be used/managed during Beta and what APIs will be created/used.</p>	<p>- Logical Architecture Specification &amp; Diagram showing functional decomposition, indicating integration with existing systems - interfaces, data flow</p>	<p>The Service Team should be able to describe the component parts of the service and how data and APIs are managed.</p>	<p>- Final architecture diagrams - Data Management - API management</p>	
<p><b>Show how decisions on technology have been made.</b> A technology options appraisal should demonstrate evidence and data-driven decision-making based on quality and cost, using a proportionate approach. Consider security in the appraisal.</p>	<p><i>Evidence of technology governance</i></p>	<p>The Service Team should show they understand the wider tech governance environment.</p>	<p>- Technology Options Appraisal, evidencing consideration of data-driven decision-making based on risk, quality and cost and security. - Evidence of review and approval of chosen decisions by programme/project governance framework, or plan to achieve such as a Technical Design Authority or Architecture Review Board - Technology Risk Log</p>	<p>The Service Team should explain how technical governance is working, how it's proportionate and how it balances control with rapid decision making and progress. In doing so, the Service Team should explain: - that they have thought about technology risks and how these are managed; - which risks have been mitigated during Alpha and which new risks are emerging; and - which tech risks will be mitigated in Beta.</p>	<p>- Update &amp; Maintain Technology Risk Log - Evidence of ongoing technology decisions being made via the agreed governance framework Technical Design Authority or Architecture Review Board</p>	<p>The Service Team should explain how technical governance is working and importantly, how this will work during live. In doing so, the Service Team should explain which risks have been mitigated during Beta and how any remaining risks will be managed.</p>	<p>- Update &amp; Maintain Technology Risk Log - Evidence of ongoing technology decisions being made via the agreed governance framework Technical Design Authority or Architecture Review Board</p>	

<p><b>Reuse first, then buy or build depending on requirements.</b> Reuse existing technology from across government where possible. Otherwise use technology based on maturity/availability of components that meet requirements and user needs. Buy or source commodity components (including open source technologies) where there are mature solutions that meet user needs in a cost effective way. Develop unique or novel components using an iterative approach.</p>	<p><i>Evidence of technology evaluation process, to determine what can be reused either open source or from the public sector ecosystem. Outline where new technology must be procured or developed.</i></p>	<p>The Service Team should show that they have considered all options for the components of the services, i.e. reuse, leverage open source, procurement of 'COTS' or the development of a solution in that order</p>	<ul style="list-style-type: none"> <li>- Technology Options Appraisal, evidencing consideration of data-driven decision-making based on risk, quality and cost and security.</li> </ul>	<p>The Service Team should show that the technology options for the service have been considered, and decisions made based on the need to Reuse first, then buy or build depending on requirements</p>	<ul style="list-style-type: none"> <li>- Updated Technology Options Appraisal with justification for decisions made</li> </ul>			
<p><b>Make the service cost effective.</b> Use appropriate tools and technologies to create and operate a good the service in a cost effective way - making sure the team understand the total cost of ownership of the technology</p>	<p><i>Evidence that the team understand total cost of ownership for the technology, and that the technologies supporting their service design are cost optimal.</i></p>	<p>The Service Team should show they've considered different technical choices for Alpha and considered how they are value for money.</p>	<ul style="list-style-type: none"> <li>- Initial estimation of Total Cost of Ownership to support Technology Options Appraisal</li> </ul>	<p>The Service Team should show they've considered different technical choices for Beta and considered how they are value for money.</p>	<ul style="list-style-type: none"> <li>- (Updated) Total Cost of Ownership analysis</li> </ul>	<p>The Service Team should show they've considered different technical choices for Live solution and considered how they are value for money.</p>	<ul style="list-style-type: none"> <li>- (Updated) Total Cost of Ownership analysis</li> </ul>	
<p><b>Make technology choices that allow flexibility.</b> Design the service to allow for different technology choices in future - for example, reducing the chances of getting locked into contracts for specific tools and suppliers, or use technologies that can easily be scaled.</p>	<p><i>Evidence of options analysis for technology choices</i></p>	<p>The Service Team should describe the technical choices they've made in Discovery, and how this will affect the decisions they make in Alpha.</p>	<ul style="list-style-type: none"> <li>- Technical Options Analysis Document</li> <li>- Technical Key Decision Document</li> <li>- Long List of Technical Options</li> </ul>	<p>The Service Team should describe the technical choices they've made in Alpha, and how this will affect the decisions they make in Beta.</p> <p>The Service Team should describe the set of programming and engineering tools they choose for Alpha, why they chose them, and how they have performed (e.g. explain limits placed on the service by the development toolchain chosen, changes they intend to make, etc.)</p>	<ul style="list-style-type: none"> <li>- Technical Options Analysis Document</li> <li>- Technical Key Decision Document</li> <li>- Long List of Technical Options</li> </ul>	<p>The Service Team should explain how they're managing the limits placed on their service by the technology stack they've chosen, any changes that have been made and why.</p> <p>The Service Team should describe the set of programming and engineering tools they choose for Beta, why they chose them, and how they have performed (e.g. explain limits placed on the service by the development toolchain chosen, changes they intend to make, etc.)</p>	<ul style="list-style-type: none"> <li>- Technical Options Analysis Document</li> <li>- Technical Key Decision Document</li> <li>- Long List of Technical Options</li> </ul>	

				The Service Team should explain how they chose suitable data capture and analysis tools to be used during Alpha, and any changes they plan in the tools used during Beta.		The Service Team should explain how they chose suitable data capture and analysis tools to be used during Alpha, and any changes they plan in the tools used on the Live Service.		
<b>Use cloud services</b> (including infrastructure as a service, platform as a service, software as a service and cloud native technologies) before equivalents, or provide strong evidence that a different approach is better	<i>Evidence that the Service Team are adopting public cloud services, or can evidence why these are not suitable.</i>			The Service Team should explain how they are using public cloud services during Alpha or provide a justification for why these aren't being used.	- Architecture principles - High level design / Solution Architecture document - Architecture components, description and usage. - Architecture Options assessment	The Service Team should explain how they are using public cloud services during Beta and planning to use them for the Live Service, or provide a justification for why these aren't being used.	- Architecture principles - High level design / Solution Architecture document - Architecture components, description and usage. - Architecture Options assessment	
<b>Use open source.</b> When sourcing components, open source technologies should be given equal consideration to commercial/proprietary technologies in options appraisals.	<i>Evidence that the Service Team are adopting open source technologies where appropriate, or can evidence why these are not suitable.</i>	The Service Team should show that they are planning to use open source technologies in the design and development of their Service, and discuss where this isn't appropriate and why.	- List of Open Source technologies being considered	The Service Team should explain how they are using open source technologies to avoid becoming locked into contracts.	- Demonstration of Open Source Technologies in-use in Service Design			
		The Service Team should demonstrate that they are giving equal consideration to open source technologies in procurement/sourcing of components.	- Detail within Procurement Strategy relating to equal consideration of open source technologies against commercial/proprietary options	Where technologies which are not open source have been procured, the Service Team should evidence that open source technologies were considered equally, and discuss why they were not adopted.	- Procurement / Sourcing Evaluation of Open Source Technologies against Commercial/Proprietary Options			
<b>Use open standards.</b> Identify the industry-approved standards you will adopt. Using industry standards means systems and services can integrate more easily.	<i>Evidence that the Service Team are adopting open standards where appropriate, or can evidence why these are not suitable.</i>	The Service Team should show that they are planning to use open standards in the design and development of their Service, and discuss where this isn't appropriate and why.	- List of Open Standards being considered	The Service Team should explain how they are using open standards and common platforms (covered in Criteria 12. Shared practices) to avoid becoming locked into contracts.	- Demonstration of Open Standards in-use in Service Design - Identification of Common Platforms used within Service Design			

<p><b>Manage dependencies on legacy technology.</b> Understand where the service integrates with or depends on legacy technology. Make sure you plan to manage any changes due to upgrades</p>	<p><i>Evidence that the Service Team have sought to minimise their dependency on legacy technology, and understand how best to manage legacy technologies throughout the lifespan of the Service.</i></p>	<p>The Service Team should identify any legacy technologies they are dependent upon / will likely be used in the design of the Service.</p>	<ul style="list-style-type: none"> <li>- List of Legacy Technologies, including details of existing support agreements and end of life / support</li> </ul>	<p>The Service Team should discuss how they have used legacy technologies in the development of their service during Alpha, highlight the impact that the technology not being available / being withdrawn from service / support would have on the Service, and evidence that they have held discussions with the legacy technology responsible owners regarding the ongoing management and plans for the technology.</p>	<ul style="list-style-type: none"> <li>- Evidence of Legacy Technologies within Technical Architecture</li> <li>- Risk Matrix entries relating to Legacy Technology withdrawal/failure</li> <li>- Evidence of discussions with Legacy Technology Owners (incl. Plans for Management of Legacy Technology)</li> <li>- Maintenance Windows and freeze periods due to business/ technical changes.</li> <li>- Development lifecycle - rate of change release and fix</li> </ul>	<p>The Service Team should provide an update on their use of legacy technologies, where this has changed during the course of Beta/for live.</p>	<ul style="list-style-type: none"> <li>- Evidence of Legacy Technologies within Technical Architecture</li> <li>- Risk Matrix entries relating to Legacy Technology withdrawal/failure</li> <li>- Evidence of discussions with Legacy Technology Owners (incl. Plans for Management of Legacy Technology)</li> <li>- Maintenance Windows and freeze periods due to business/ technical changes.</li> <li>- Development lifecycle - rate of change release and fix</li> </ul>	
<p><b>Create a sustainable plan for procurement and contract management.</b> Reduce risk by breaking procurements into smaller parts where possible</p>	<p><i>Evidence of a procurement approach developed in collaboration with the appropriate sourcing/procurement team</i></p>	<p>The Service Team should demonstrate that they have identified an appropriate procurement approach for Alpha breaking procurements into smaller parts where possible, and that they have sought professional procurement input / have secured procurement resource as part of their resource plan.</p>	<ul style="list-style-type: none"> <li>- Procurement Strategy</li> <li>- Procurement Approach / Plan</li> <li>- Evidence of Procurement Team Input / Procurement Resource as part of Resource Plan</li> </ul>	<p>The Service Team should show evidence of having conducted the procurement process to agreed standards and protocols</p>	<ul style="list-style-type: none"> <li>- Procurement Standards and Protocols</li> </ul>	<p>The Service Team should evidence that contracts are in place with vendors, including an agreed approach for vendor management, and that regular performance and progress reports are produced. The Service Team should also indicate that, where the contract will be transferred to another organisation when the Service goes live, that the organisation has been consulted / involved in the contracting process.</p>	<ul style="list-style-type: none"> <li>- Approach to Vendor Management</li> <li>- Change management</li> </ul>	
		<p>The Service Team should describe how they will ensure they receive value for money when buying any technologies/tools.</p>	<ul style="list-style-type: none"> <li>- Procurement Strategy (including details of how vendors will support the flexibility and continuous delivery/improvement approach expected of the Service)</li> <li>- Requirements Documentation for</li> </ul>	<p>The Service Team should explain what they've bought, how this delivers value for money, and how they will continue to get value for money from these technologies/tools throughout the</p>	<ul style="list-style-type: none"> <li>- Procurement Evaluation against RFPs (Request for Proposal)</li> <li>- Evidence of how procured technologies and tools have supported flexibility and continuous improvement during Beta.</li> </ul>			

			Procurement / RFPs (Request for Proposal)	lifespan of the Service.				
<p><b>Consider the impact of your service on the environment.</b> Create a service that reduces waste and energy consumption where possible, for example through cloud computing, minimising use of paper and reducing travel needed for the delivery or use of services.</p>	<p><i>Evidence of reducing environmental impact</i></p>	<p>The Service Team should explain how they plan to reduce the environmental impact of the service.</p>	<ul style="list-style-type: none"> <li>- Environmental Impact Assessment</li> <li>- Environmental Impact Approach / Plan</li> </ul>	<p>The Service Team should describe how they have considered and minimised the environmental impact of the technologies chosen for Alpha, including how they have considered the end to end environmental impact (manufacture, in life operation and disposal), and how user journeys and business processes have been designed to reduce environmental impact.</p>	<ul style="list-style-type: none"> <li>- Environmental Impact Assessment of Technologies and User Journeys</li> <li>- Evidence of consideration of Environmental Impact of User Journeys</li> </ul>	<p>The Service Team should describe how they have considered and minimised the environmental impact of the technologies chosen for the live service, including how they have considered the end to end environmental impact (manufacture, in life operation and disposal), and how user journeys and business processes have been designed to reduce environmental impact.</p>	<ul style="list-style-type: none"> <li>- Environmental Impact Assessment of Technologies and User Journeys</li> <li>- Evidence of consideration of Environmental Impact of User Journeys</li> </ul>	
				<p>The Service Team should describe how the environmental impact of their Service will be measured and reported.</p>	<ul style="list-style-type: none"> <li>- Environmental Impact KPIs</li> <li>- Environmental Impact Dashboard Design</li> </ul>	<p>The Service Team should demonstrate how the environmental impact of their Service is being measured and reported, and explain how this monitoring will be reported and used once live.</p>	<ul style="list-style-type: none"> <li>- Environmental Impact KPIs</li> <li>- Demonstration of Environmental Impact Dashboard or other monitoring</li> <li>- Plan for Monitoring Environmental Impact of Live Service</li> </ul>	



## 11. Make new source code open

## Digital Scotland Service Standard - Minimum Evidence Framework (Agile - DSA1)

What the Project/Service Team should do	What Assessors need to see	Discovery	Sample Artefacts (Discovery)	Alpha	Sample Artefacts (Alpha)	Beta	Sample Artefacts (Beta)	Commentary
<b>Write code in the open from the start.</b> Publish this in an open repository - minus any sensitive information, like secret keys and credentials.	<i>Evidence of a plan/approach for making software open source</i>	The Service Team should describe their approach to identifying and making source code open and reusable.	- Description of potential source code that could be made open, and how it will be approved	The Service Team should explain how they plan to make all new source code open and reusable.	- Plan for publishing identified source code including the approval process	The Service Team should explain how they're making new source code open and reusable. Also explain the code they've not made open and why.	- Provide a list of the code that has been/will be made open - Provide a list of the code that was not made openly available and why	For example, a documented approach, increasing in detail through the phases, or reference to an organisational one.
<b>Understand when you should not publish code.</b> Identify and describe where code is too sensitive to publish.	<i>Evidence of ownership of intellectual property</i>	The Service Team should describe any areas of their Service Design where they feel that publishing code is unsuitable, due to intellectual property infringement, or other sensitivities.	- Description of potential source code that may not be made open and why			The Service Team should confirm that they own the intellectual property to all source code being published openly.	- Provide a list of the code that was not made openly available and why	For example, the Service Team should have a clear understanding of who developed the code (employees, contractors) and the contractual position for making software developed by a third party open source.
<b>Describe how you'll do open source.</b> Have a clear process for the lifecycle of the service, for example how you'll manage pull requests and fork code.	<i>Evidence of availability and support for reuse</i>	The Service Team should have a process for the lifecycle of the service, for example how to manage pull requests and fork code.	- Process for making open source code available	The Service Team should explain how someone else can reuse their code and show any Alpha code they've built in an open internet source code repository	- Provide a screen shot of the source code in the open repository - Provide the information necessary for others to effectively use the open source code	The Service Team should explain how a team in another department can reuse their code and show their code in an open internet source code repository	- Documentation of how to use specific open source code.	
<b>Make source code you've created available for reuse.</b> Keep ownership of the intellectual property of new source code that's created as part of the service, and make it available for reuse under an open licence.	<i>Evidence of detailed approach for managing software open source</i>					The Service Team should describe how they will accept contributions and comments on their open source code once published, and explain how they plan to handle updates and bug fixes to the code.	- Documented approach / process for open source code contributions, updates, and bug fixes.	



	<i>Evidence of appropriate licence(s) for open sourced software</i>					The Service Team should identify the licenses under which open sourced software is being released, and explain their choice of each license (ensuring that the license appropriately respects the Intellectual Property Rights desired).	<ul style="list-style-type: none"><li>- Open Source Software Licenses</li><li>- Agreement of Agency/Organisation to Open Source Publication under terms of each license.</li></ul>	
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## 12. Use and contribute to shared digital practices, processes, components, standards, patterns and platforms

## Digital Scotland Service Standard -

### Minimum Evidence Framework (Agile - DSA1)

What the Project/Service Team should do	What Assessors need to see	Discovery	Sample Artefacts (Discovery)	Alpha	Sample Artefacts (Alpha)	Beta	Sample Artefacts (Beta)	Commentary
<b>Reuse national assets.</b> Including government services and platforms, for example mygov.scot for service information and statistics.gov.scot for publishing open data.	<i>Evidence of understanding of how the service relates to other services</i>	The Service Team should demonstrate an awareness of their service pattern.	- Service Pattern	The Service Team should demonstrate an understanding of other services offered in Scotland/the UK, and the service patterns they align with. In addition, the Service Team should explain any user needs they've identified that are common to other services and how they're going to meet them in a way that's consistent with the rest of government.	- Service Patterns (including those for services with which the in-scope service will interact) - User Stories for Common Services			
	<i>Evidence of understanding of how the service can use existing or developing common capabilities</i>	The Service Team should evidence that they have considered which common capabilities / services / platforms they will draw on and contribute to through the development of this Service, in order to support the delivery of better public services and improved governance	- Conceptual Architecture - Evidence of use of SG GitHub - Details of Shared/Common Capabilities	The Service Team should evidence how they are using common platforms in the development of their Service.	- Updated Conceptual Architecture - Evidence of use of SG GitHub - Evidence of Common Platform Use in Service Development			
				The Service Team should explain any user needs they've identified that are common to other services, and how their Service design meets these needs in a way that's consistent with the rest of government	- Documented User Needs relating to Common Service Components - Evidence that Service Design for these needs is consistent			
<b>Share your outputs for the benefit of others.</b> Consider where you can share code, services, components, service patterns, research insights or knowledge. If you're spending public money, it's important to make sure others get value from your work	<i>Evidence of sharing</i>	The Service Team should evidence that they have considered where they can share code, services, components, service patterns, research insights or knowledge.	- List of code, services, components, service patterns, research insights or knowledge that could be candidates for sharing	The Service Team should evidence that they have identified which code, services, components, service patterns, research insights or knowledge that can be offered for sharing, or which are already shared.	- List of code, services, components, service patterns, research insights or knowledge that has been or will be made available for sharing	The Service Team should evidence that the code, services, components, service patterns, research insights or knowledge created have been shared	'- List and location of code, services, components, service patterns, research insights or knowledge that has been shared	
<b>Use data standards.</b> Use terms from shared, standardised vocabularies to encode data and metadata and use persistent URIs as identifiers.	<i>Evidence of using data standards</i>			The Service Team should discuss the data standards being applied to the service, and the approach to identifiers being adopted for the service.	- List / Analysis of Relevant Data Standards to be applied to Service - Agreed Approach to Identifiers	The Service Team should evidence that their Service conforms to the data standards discussed during Alpha.	- Evidence of Application of Data Standards	

<p><b>Make a plan to improve the quality of your data.</b> Recognise what data you have and how it can be used to improve your service.</p>	<p><i>Evidence of data quality management</i></p>			<p>The Service Team should explain their approach to data quality for the service, and discuss how they intend to resolve data quality issues identified during user testing in Alpha.</p>	<ul style="list-style-type: none"> <li>- Data Strategy (section on Data Quality and Improvement)</li> <li>- Data Quality Plan</li> <li>- User Testing results / User Stories relating to Data Quality</li> </ul>	<p>The Service Team should explain how they have implemented their approach to data quality for the service in Beta, and how they intend to monitor and improve data quality for the live service through continuous improvement.</p>	<ul style="list-style-type: none"> <li>- Data Strategy (section on Data Quality and Improvement)</li> <li>- Data Quality Plan</li> <li>- User Testing results / User Stories relating to Data Quality</li> <li>- Continuous Improvement Plan</li> </ul>	
<p><b>Make your data available for re-use.</b> Create data sets that are potentially useful to others inside or outside government and publish them in an open, machine readable format.</p>	<p><i>Evidence of following the open data policy</i></p>	<p>The Service Team should discuss how they intend to publish open data for re-use relating to the Service, and confirm that data will be made available for free (and highlight any exceptions to this). In doing so, the Service Team should explain how they will encourage and empower others to make use of the data for various purposes (e.g. commercial, non-commercial, educational, etc.)</p>	<ul style="list-style-type: none"> <li>- Open Data Strategy and User Stories</li> <li>- Open Data Communications Plan/Approach</li> </ul>	<p>The Service Team should show a plan for how data will be made open and available for re-use, and demonstrate how the opening up of data in this way has been built into business processes.</p>	<ul style="list-style-type: none"> <li>- Open Data Publishing Plan</li> <li>- Open Data sets identified with Plan for Sharing</li> </ul>	<p>The Service Team should demonstrate how data has been made open and available for re-use.</p>	<ul style="list-style-type: none"> <li>- Open Data Publishing Plan</li> <li>- List of open data made available for sharing</li> </ul>	
				<p>The Service Team should justify why certain data, if any, will not be published.</p>	<ul style="list-style-type: none"> <li>- Data sets identified as being unsuitable for making 'open'</li> </ul>			
						<p>The Service Team should explain how data users will be made aware of data limitations and what metadata will be provided.</p>	<ul style="list-style-type: none"> <li>- Details of Data Limitations</li> <li>- Metadata to accompany Open Data Publication</li> </ul>	
		<p>The Service Team should demonstrate an awareness of how data can support delivery of better public services and improved governance.</p>	<ul style="list-style-type: none"> <li>- Examples of Open Data publication for similar services globally, and indication of the impact this has had</li> </ul>					

### 13. Operate a reliable service

### Digital Scotland Service Standard - Minimum Evidence Framework (Agile - DSA1)

What the Project/Service Team should do	What Assessors need to see	Discovery	Sample Artefacts (Discovery)	Alpha	Sample Artefacts (Alpha)	Beta	Sample Artefacts (Beta)	Commentary
<b>Define non-functional requirements.</b> Establish when the service needs to be available, how many people are expected to use it at busy times and what impact any down-time might have. Consider other non-functional requirements as well.	<i>Evidence of sound non-functional requirement (NFR) approach</i>	The Service Team should explain the approach they plan to take for gathering non-functional requirements for the service.	- Non-Functional Requirements (NFR) gathering Approach - Initial NFR Catalogue	The Service Team should show how they are capturing non-functional requirements for the service.	- Complete or developing NFR Catalogue			
<b>Carry out quality assurance testing regularly.</b> Establish system quality attributes for features and non-functional requirements and test against these. Have a plan in place to deal with issues. Test the service in an environment that's as similar to live as possible	<i>Evidence of test planning</i>	The Service Team should show that they have a plan for testing their Alpha prototype and show any non-functional requirements they are planning to test during Alpha	- Test Approach/Strategy & Plan for Alpha prototype	The Service Team should show that they have a well defined approach for testing during beta including how non-functional requirements will be tested.	- Test Approach/Strategy & Plan for Beta, including evidence of lessons learned from Alpha testing	The Service Team should show that they have tested their service frequently during Beta.	- Test Completion Reports - Agreed testing approach during production and continual improvement	
	<i>Evidence of end-to-end service testing</i>			The Service Team should demonstrate that where integration allows, end to end service testing has been conducted in a suitable environment as close to live as possible. This should include both digital and non-digital components.	- User stories with acceptance criteria - Preliminary End to End Service Testing results	The Service Team should show that they are testing their service in an environment that's as similar to live as possible and show that they understand the systems they need and the testing environments for non-digital parts of the service.	- Test Completion Reports - Agreed testing approach during production and continual improvement	
	<i>Evidence of performance testing</i>					The Service Team should demonstrate confidence that their Service will adequately support the number of expected users expected concurrently, including users who need assisted digital support.	- Test Completion Reports - Agreed testing approach during production and continual improvement	

	<i>Evidence of compatibility testing</i>			The Service Team should evidence how they have identified compatibility requirements, and how they intend to test compatibility, for example on different browsers and devices.	- Compatibility testing approach	The Service Team should show that they are testing their service using the browsers and devices that their users use.	- Test Completion Reports - Agreed testing approach during production and continual improvement	
	<i>Evidence of capturing results and acting on them</i>	The Service Team should show that they have an approach to capturing the end user experience and taking action on feedback.	- Defined process to capture end user feedback and action	The Service Team should show that they have captured end user feedback on any initial prototypes and actioned it.	- Evidence of feedback and actions taken as a result	The Service Team should show they're solving any technical problems they've found, and that they will continue to capture end user experience feedback in the live service to inform their continuous improvement plans.	- Evidence of feedback and actions taken as a result - Defined process to capture end user feedback in live service - Continuous Improvement Plan	
<b>Plan for major events.</b> Have a plan for disaster recovery in the event of a breach or major event that could disrupt service delivery	<i>Evidence of business continuity approach</i>			The Service Team should evidence that they have produced a business continuity plan, including disaster recovery, for the Service. The plan should demonstrate thought about how they will assess and prioritise different incident scenarios.	- Business Continuity Plan - Disaster Recovery Plan	The Service Team should evidence that they have tested their business continuity and disaster recovery plans for the Service, and updated these where appropriate based on the test results.	- Business Continuity and Disaster Recovery Testing Outcomes - Updated Business Continuity Plan - Updated Disaster Recovery Plan	
	<i>Evidence of recovery time and recovery point planning</i>			The Service Team should discuss the impact that the service not being available (for any length of time) would have on users.	- Agreement of Recovery Time and Point Objective (or equivalent) - may be contained within the Business Continuity Plan - Disaster / Business Continuity User Impact Assessment	The Service Team should explain their data recovery strategy, and how they've tested it.	- Business Continuity and Disaster Recovery Testing Outcomes	

<p><b>Maximise uptime and speed of response for the online part of the service.</b> Actively work towards fixing any organisational or contractual issues which make it difficult to maximise availability</p>	<p><i>Evidence of design and build for availability</i></p>	<p>The Service Team should evidence that they have developed non-functional requirements relating to reliability (including uptime and speed of response).</p>	<p>- Non-Functional Requirements relating to Reliability</p>	<p>The Service Team should explain how the technologies designed and selected for the Service will be able to meet the reliability requirements set out in Discovery.</p>	<p>- Technology Design Documentation (focus on reliability)</p>	<p>The Service Team should explain how they have tested the reliability of their Service during Beta, and how they plan to continue monitoring and testing technology reliability in live.</p>	<p>- Performance Testing Results relating to Service Reliability</p>	
	<p><i>Evidence of failure analysis</i></p>					<p>The Service Team should outline the most likely causes for the service going offline, and how they plan to stop them from happening.</p>	<p>- Technology/Service Contingency Plans</p>	
<p><b>Deploy software changes regularly without significant downtime.</b> Use automated end-to-end testing to ensure the service functions as designed and to protect against introducing regression as you continually improve the service</p>	<p><i>Evidence of approach to deployment of environments</i></p>			<p>The Service Team should explain their approach to environments.</p>	<p>- Environment Plan</p>	<p>The Service Team should demonstrate that they have an effective deployment environment and can create new environments quickly and easily.</p>	<p>- Environment Plan - Evidence of Deployment / Pre-Production Environment</p>	
	<p><i>Evidence of approach to deployment of software</i></p>			<p>The Service Team should explain the method and tools they will use to aid deployment on a frequent basis.</p>	<p>- Software Release / Deployment Tools and Method</p>	<p>The Service Team should evidence that they have the ability to deploy software frequently with minimal to zero disruption to users.</p>	<p>- Software Release / Deployment Plan or Approach - Software Release / Deployment Processes</p>	
<p><b>Put processes and tools in place to operate the service.</b> Use tools to monitor the reliability of the service</p>	<p><i>Evidence of operational services and tools</i></p>					<p>The Service Team should explain their plan for the management and continuous improvement of the underlying Service technologies.</p>	<p>- Operating Approach / Process Documentation - Technology Management Plan</p>	
		<p>The Service Team should identify the skills required to manage, support, and continuously improve the underlying Service technologies and capabilities, and the approach for accessing those skills.</p>	<p>- Resource Plans - List of Specialist Skills Required</p>					

	<i>Evidence of operational processes - incident management</i>					The Service Team should explain their strategy for proactively monitoring and maintain the service when it is live to prevent incidents occurring and protecting the reliability of the service	- Incident/Problem Management Approach and Processes, focus on proactive monitoring and maintenance	
						The Service Team should explain how incidents experienced by users and service providers (such as outages) will be managed once live, including who's responsible and the decisions they are empowered to make. This should include liaison with service providers throughout	- Incident/Problem Management Approach and Processes - Evidence of Outage Scenario Testing / Ways of Working	
	<i>Evidence of operational processes - monitoring</i>			The Service Team should outline how they plan to monitor the performance and function of the Service once live.	- Performance Monitoring Strategy / Approach - List of KPIs being considered for Performance Monitoring	The Service Team should demonstrate how they will collect data to monitor the service once live, including availability, performance and other attributes.	- Performance Monitoring Dashboard/Tools - List of KPIs agreed for Performance Monitoring	

## 14. Ensure sponsor acceptance

## Digital Scotland Service Standard - Minimum Evidence Framework (Agile - DSA1)

What the Project/Service Team should do	What Assessors need to see	Discovery	Sample Artefacts (Discovery)	Alpha	Sample Artefacts (Alpha)	Beta	Sample Artefacts (Beta)	Commentary
<p><b>Include the right people as the service develops.</b> Making sure user needs and ways of working are understood and supported.</p>	<p><i>Evidence that there is a robust governance structure in place and that procedures are followed to manage risk and make decisions</i></p>	<p>The Service Team should provide the initial governance framework for the Service, which should identify initial risks and their mitigation/management, articulate how decisions are made, and make clear who has overall decision making/approval authority.</p>	<ul style="list-style-type: none"> <li>- Governance Framework</li> <li>- Risk Log</li> </ul>	<p>The Service Team should provide the most up-to-date version of the Service governance framework, and explain any changes since Discovery.</p>	<ul style="list-style-type: none"> <li>- Up-to-Date Version of Governance Framework</li> <li>- Risk Log</li> </ul>	<p>The Service Team should provide the most up-to-date version of the Service governance framework, and explain any changes since Alpha. The governance framework should also set out any changes that will be made to Service governance in live.</p>	<ul style="list-style-type: none"> <li>- Up-to-Date Version of Governance Framework</li> <li>- Risk Log</li> </ul>	<p>In addition to the documented governance structure, examples of the successful operation of the structures should be shared indicating where key risk areas and decisions made are captured, reported and actioned.</p> <p>Materials shared should indicate roles and responsibilities across the Service Team and wider accountabilities as appropriate and how they map across.</p>
	<p><i>Where applicable, evidence that operational organisations are involved in the development of the Service, and accepting of the MVP delivered.</i></p>	<p>Where the operational organisation differs from the organisation delivering the Service MVP, the Service Team should set out how they intend to involve the operational organisation throughout the development of the Service.</p>	<ul style="list-style-type: none"> <li>- Evidence of Plan for Engaging Operational Organisation</li> </ul>	<p>Where the operational organisation differs from the organisation delivering the Service MVP, the Service Team should evidence how they have involved the operational organisation in the development of the Service during Alpha.</p>	<ul style="list-style-type: none"> <li>- Evidence of Operational Organisation Engagement during Alpha</li> </ul>	<p>Where the operational organisation differs from the organisation delivering the Service MVP, the Service Team should evidence how they have involved the operational organisation in the development of the Service during Beta. The Service Team should also evidence that the operational organisation have signed off on the Service MVP being delivered to them in live.</p>	<ul style="list-style-type: none"> <li>- Evidence of Operational Organisation Engagement during Beta</li> <li>- Operational Organisation Sign-Off</li> </ul>	
	<p><i>Evidence that ministerial sign-off has been obtained</i></p>					<p>The Service Team should evidence that they have tested the end-to-end service with the minister / senior sponsor responsible for it, including any</p>	<ul style="list-style-type: none"> <li>- Ministerial/Sponsor Sign-Off</li> </ul>	



						legacy or offline components.		
<b>Be open and transparent.</b> Communicate what you know about user needs, policy and technology constraints and any risks with the service.	<i>Evidence of understanding stakeholder landscape</i>	The Service Team should evidence an understanding of who their stakeholders are, as set out in Criteria 1 for insight sharing.	- List of Relevant Stakeholders (may be included in Communications Plan) - Stakeholder Management Matrix	The Service Team should highlight any updates to their stakeholder mapping during Alpha.	- Updated List of Relevant Stakeholders, if applicable (may be included in Communications Plan) - Stakeholder Management Matrix	The Service Team should highlight any updates to their stakeholder mapping during Beta.	- Updated List of Relevant Stakeholders, if applicable (may be included in Communications Plan) - Stakeholder Management Matrix	
	<i>Evidence of clear communication plans</i>	The Service Team should produce a communications plan, including key messaging for internal and external stakeholders, and a plan of activities to take place in Alpha.	- Communications Plan (incl. Plan for Alpha)	The Service Team should demonstrate that they are on-track against the communications plan activities set out for Alpha, and provide a plan for communications activities with internal and external stakeholders during Beta.	- Communications Plan (incl. Plan for Beta)	The Service Team should demonstrate that they are on-track against the communications plan activities set out for Beta, and provide a plan for communications activities with internal and external stakeholders once live.	- Communications Plan (incl. Plan for Live Service)	Service Teams should be able to articulate how their delivery practices include briefing the wider organisation and communities of practice as appropriate.