**Schedule 28A (Agile Development Additional Terms)**

 ***[Guidance: Note that the following provisions relating to Agile development only envisages it being a small part of the Deliverables, and for such development to be undertaken by the Supplier largely independently of the Buyer. If this Contract is for a full Agile development and/or for agile development where there is joint development work undertaken by the Supplier and Buyer together then an alternative more suitable form of contract should be considered.***

***The Buyer should ensure that the process set out in this Schedule aligns with the Buyer’s particular usage of Agile, and amend where required – the use of Agile methods is at varying levels of maturity across Central Government and the Public Sector, from some Buyers who use some Agile techniques within “Waterfall”-style (i.e. linear, sequential programmes) to others who use true Lean Agile. In any event consider any knock on effects that may arise from use of Agile development, such as charging structure and risk profile.***

 ***The Buyer should also consider the interaction of this Schedule with Schedule 8 (Implementation Plan and Testing), Schedule 28 (ICT Services), Schedule 2 (Specification), Schedule 4 (Tender), and Schedule 3 (Charges). This Schedule (28A) is intended to cover the function of the Agile process, rather than the performance or functionality requirements of any ICT/DDaT. The*** [***Data and Digital Playbook***](https://www.gov.uk/government/publications/the-digital-data-and-technology-playbook) ***published on Gov.uk also has some helpful information on Agile development, including best practice on testing and iterative development. The new*** [***Contracting for Agile Guidance Note***](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1163540/Contracting_for_Agile_Guidance_Note.pdf) ***should also be considered in detail.***

***The definitions set out in Paragraph 1 below are those that are required in addition to those set out in Schedule 1 (Definitions) and Schedule 28 (ICT Services)]***

1. **Definitions**

In this Schedule, the following words shall have the following meanings and they shall supplement Schedule 1 (*Definitions*) and the definitions in Schedule 28 (*ICT Services*):

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| "Agile" | an iterative and incremental approach to software design and systems development; |
| "Agile Development Project" | has the meaning given in Paragraph 2.1.1 of this Schedule; |
| "Project Team" | has the meaning given to it in Paragraph 2.1.2(a) of this Schedule; |
| "Project Vision" | has the meaning given to it in Paragraph 2.1.2(b) of this Schedule; |
| "Release" | in relation to any Deliverables (including Specially Written Software and New IPR (which are in the nature of software)) the stage in the development process whereby those Deliverables are intended to be put in to live operation or production following successful completion of acceptance tests; |
| "Requirement Tracking Tool" | the Supplier's requirement tracking tool for use in connection with the provision of the Deliverables that is Approved and is accessible to relevant Buyer staff remotely; |
| "Sprint" | the process pursuant to which the software is written for a given User Story in a defined timebox or with a defined output as described in Paragraph 2 of this Schedule; |
| "User Story" | one or more sentences written in the everyday or business language of a user of a system that captures use requirements which together constitute the requirements for a given Deliverable, agreed by the Parties in accordance with the provisions of Paragraph 2.3 of this Schedule plus any associated image or visual implementation; and |
| "Velocity Measure" | the rate of productivity measured over time taking account of the complexity of the Deliverables being provided. |

1. **Agile development**
	1. **Overall Approach**
		1. The Supplier will manage those parts of the Deliverables which are identified as Agile development projects (**"Agile Development Projects"**) in accordance with a recognised Agile project management methodology (such as DSDM Atern) Approved and deliver them in accordance with this Paragraph 2.
		2. For each Agile Development Project, the Supplier will document and agree with the Buyer in writing:
			1. the team to perform the services (**"Project Team"**) including their names, roles, experience and relative seniority, on the basis that the size and/or composition of the Project Team may be subject to amendment by written agreement of the Parties; and
			2. the overarching aims and objectives of the project (**"Project Vision"**) having regard always to the Buyer's requirements.
	2. **Sprints**

Each Agile Development Project will be divided into a number of Sprints, to be agreed in writing.

* 1. **Release Planning: High-level User Stories and Sub-Stories**
		1. The Supplier will use the Buyer's requirements and the Project Vision to:
			1. identify and agree User Stories defining the scope of the relevant Deliverables;
			2. identify any Buyer dependencies relevant to a particular User Story and the point within such User Story when that dependency is required,

and present such User Stories and dependencies to the Buyer for its Approval.

* + 1. The Supplier will, at the start of the Agile Development Project in consultation with the Buyer, propose acceptance criteria and acceptance tests relating to the relevant Deliverables in compliance with Schedule 8 (*Implementation Plan and Testing*) for the Buyer’s Approval.
		2. The Supplier will, at the start of each Sprint, propose acceptance tests for each User Story based on the acceptance criteria in Paragraph 2.3.2 and any additional criteria applicable to a Release for Approval.
		3. During the Agile Development Project, the Supplier will be responsible for preparing and drafting and updating User Stories, dependencies and acceptance criteria and tests for Approval.
	1. **Release Planning: Initial Story Mapping**

The Supplier will promptly and on a continuous basis in consultation with the Buyer:

* + 1. categorise and group User Stories by function (user activity category);
		2. allocate User Stories to a Release and validate the inclusion of User Stories in that Release; and
		3. assign an indicative priority for each User Story within a particular Release using agreed indicative categories such as "must have" or "good to have",

for Approval.

* 1. **Release Planning: Point and Velocity Estimation**
		1. The Supplier will promptly and on a continuous basis:
			1. estimate feature complexity for each requirement/User Story allocated to a Release;
			2. estimate the Velocity Measure of the Project Team in delivering a Release and the time required by the Project Team to complete such Release; and
			3. upload each requirement/User Story and each of the estimates referred to in paragraphs 2.5.1(a) and 2.5.1(b) above into Requirement Tracking Tool.
		2. In doing so, the Supplier will have regard to any potential input from the Buyer or third-party resources located in other time zones and the impact that this may have on the timely completion of a Release's delivery.
	2. **Release Planning: Determine Release Date and Re-prioritise**
		1. The Supplier will review and revalidate the indicative User Story priorities set out at Paragraph 2.4.3 above on a continuous basis. If, as a result of such review, the Supplier believes that the Release will not be achieved within its defined time frame as set out at Paragraph 2.5 above:
			1. if this is caused by a change made by the Buyer and the Buyer accepts this, the Supplier will request a Variation;
			2. if this is due to an underestimation of the effort required or because the Supplier has failed to achieve the anticipated Velocity Measure, the Supplier will provide, at its cost, such additional resources as may be required to ensure that the Release achieves its defined timeframe; or
			3. if this is caused partly by a change made by the Buyer and partly by an underestimate of the effort required or because the Supplier has failed to achieve the anticipated Velocity Measure, the Supplier will request a Variation in respect of that proportion of the delay caused by the change made by the Buyer and the Supplier will provide, at its cost, additional resources as may be required in respect of the proportion of the delay caused by the Supplier.
		2. Alternatively, the Parties may agree in writing such changes to any User Story or User Story priorities (including reprioritising, amending, modifying or removing any User Stories prior to the commencement of a Release) as are reasonably required and such amended details will be recorded in the Requirement Tracking Tool.
	3. **Release Planning: General**
		1. The Supplier will promptly inform the Buyer if it believes that any User Stories are not suitable for development using an Agile project methodology.
		2. The Supplier will regularly update the Requirement Tracking Tool to provide a close to real time overview of status of the Agile Development Project, Sprint status, Sprint backlog, and the progress/status of individual User Stories.
	4. **Sprint Planning**
		1. Each Sprint will last for between [2 and 4] weeks unless otherwise agreed in writing between the Parties.
		2. At the start of each Sprint, the Supplier will re-estimate the feature story complexity value of each User Story and notify the Buyer if there are any significant increases or decreases in the complexity of the Sprint and agree in writing which User Stories should be removed from the Sprint.
		3. If the Buyer agrees, the Parties may add or remove User Stories from a particular Release to take account of any changes in estimated complexity, or amend the scheduled Release date. If the Buyer does not agree, no such changes will be made.
		4. During the course of each Sprint, the Supplier will:
			1. develop the selected User Stories using the agreed test-driven development methodology;
			2. once developed, make any Deliverables related to that User Story available to the Buyer in an agreed test area and mark the User Story as completed in the Requirement Tracking Tool;
			3. test all developed User Stories, including carrying out robust regression and component testing as agreed in writing between the parties or set out in any agreed requirements, to ensure that they function correctly and fulfil the relevant acceptance criteria; and
			4. submit completed User Stories to the Buyer for final review and Approval,

in each case taking all reasonable steps to successfully develop and complete all User Stories allocated to a Release by the completion of the relevant Release.

* + 1. The Supplier will promptly notify the Buyer if it believes any amendments to the scope or content of a Sprint are required to achieve the Release, including adding, removing and amending User Stories within a Sprint.
		2. If the Parties agree in writing to remove a User Story from a Sprint after the Sprint has commenced:
			1. and the request is made by the Buyer, then the Velocity Measure for that Sprint will be adjusted as though the Supplier had developed such User Stories in the course of that Sprint; and
			2. and the request is made by the Supplier and agreed to by the Buyer, then the Velocity Measure for that Sprint will be adjusted to take account of the fact that the Supplier has failed to develop such User Stories in the course of that Sprint.
		3. For the purposes of Paragraphs 2.8.1 to 2.8.6, any changes to Releases or Sprints will be subject to written agreement and will be recorded in the Requirement Tracking Tool.
	1. **Release completion and acceptance testing for Sprints**
		1. Following the completion of the development stage of each Sprint where there will be a Release, the Buyer will, in accordance with Schedule 8 (*Implementation Plan and Testing*):
			1. perform the acceptance tests in order to validate the content of the Release against the Project Vision and the acceptance criteria; and
			2. identify any errors, bugs, unexpected behaviours or other failure of the Release to comply with the functional requirements or specifications of the acceptance criteria or the Project Vision.
		2. As part of the Sprint planning process, the Supplier will propose for Approval a reasonable period of time within each Sprint for the Supplier to correct any Defects and to rectify any issues identified in the acceptance testing process set out in Paragraph 2.9.1 above or otherwise identified by Buyer in its review of the Release.
		3. Notwithstanding Paragraph 2.3.2, the Buyer may specify in writing additional acceptance tests or testing criteria required to be performed and used by the Supplier in respect of any iteration or Sprint, as part of the Agile project methodology.