Standard information management plan

Guidance

This guidance has been produced in response to the development of the SFT Standard information management plan (SIMP) for public sector bodies in Scotland.

This document is **not** Statutory Guidance but offers a best practice approach to adopting the SFT SIMP for delivering information management using BIM on new public sector projects.

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1.0 Introduction

The Standard Information Management Plan (SIMP) provides a common approach to embed robust information management processes within infrastructure projects using building information modelling (BIM). If we create, manage and share information on our infrastructure projects efficiently and leverage associated technologies, the benefits will be significant across the asset lifecycle through the reduction in waste, improved delivery and ultimately improve how we management and maintain our assets.

Since the publication of the Scottish Government BIM policy in 2017, industry and public bodies have made significant progress to enable BIM and digital working within the delivery of our infrastructure. This has demonstrated the benefits, where projects have reduced costs, improved carbon performance and reduced risk.

The SIMP has been developed to enable contracting authorities establish and ensure the delivery of appropriate project and asset information using BIM in accordance with BS EN ISO 19650 parts 1 and 2. It has three primary objectives: -

- Support a consistent approach in how public bodies specify BIM and how information is delivered.
- Enable delivery of accurate as-built digital information models & O&M manuals to support lifecycle asset management.
- Comply and align with new international standards in the adoption of BIM.

It has been developed through significant industry consultation and support, and its initial roll-out and implementation is on the Scottish Governments £1 billion Learning Estate Investment Programme, announced in September 2019.

The SIMP is made up of three constituent parts which include the project dashboard, workbook, and associated templates. In addition, there are programme level and national resources to support its implementation within projects.
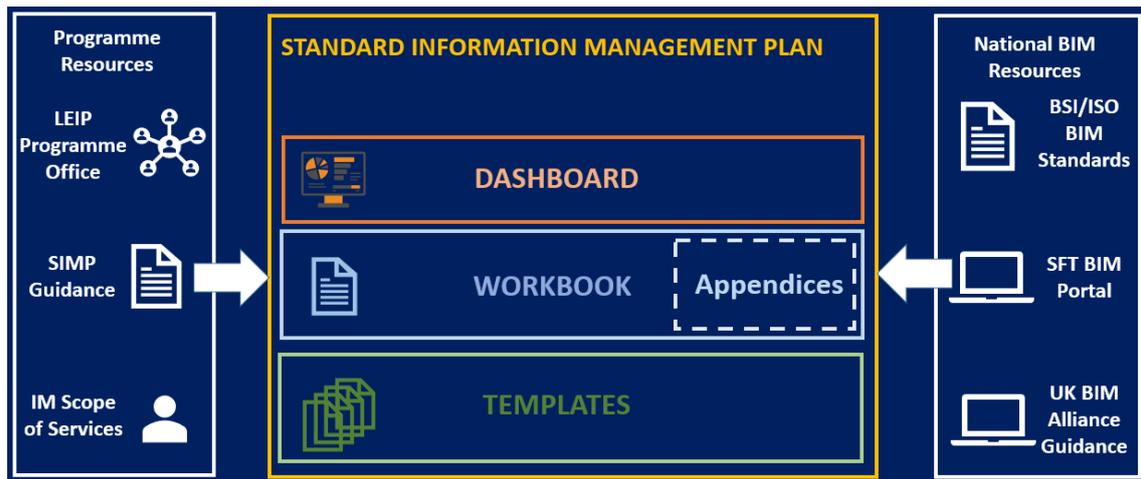
Figure 1. Standard Information Management Plan

This guidance is designed to support contracting authorities adopt the SIMP and is not technical guidance in relation to the detailed implementation of BIM. Each user should refer to the SFT SIMP disclaimer and seek appropriate professional advice to support its population and implementation for each project. Further guidance is provided in section 4.0 of this document.

To access the SIMP documentation please refer to the SFT BIM portal via **here** or email bimdeliverygroup@scottishfuturestrust.org.uk . Future updates of this guidance document will be issued via the SFT BIM portal, SIMP download section.

2.0 Key Principles of the SIMP

This section outlines several key aspects and principles in relation to the adoption and implementation of the SIMP on a project.

2.1   People – Skills, roles, and terminology

It is paramount that appropriate skills and expertise, clear roles and responsibilities and consistent language are considered. The SIMP:

- supports the appointment of a suitably qualified party to undertake all or part of the project information management function on behalf of the contracting authority. (*Refer to the Information Manager scope of services template available via the SFT BIM portal*)

- establishes the project team roles and responsibilities which will manage and deliver the information management tasks.

- is aligned with the BS EN ISO 19650 parts 1 and 2 international standards, and all associated terminologies have been adopted. (*Refer to appendix A herein for a list of terminologies and definitions*)

2.2   Information – The what, when and who

The SIMP sets out what information is needed, when it should be delivered, and by whom. Its key relevant principles are:

- a baseline set of prescribed project information requirements with defined purpose's to be reviewed and evolved by the contracting authority.

- an exemplar folder structure developed to support the collation and transfer of information to the contracting authority at key project milestones.

- the embedment of UK construction industry Uniclass 2015, for the classification of all information deliverables and assets.

- a core list of maintainable assets based on periodical condition survey and statutory compliance obligations. This list should be reviewed and evolved as the project design progresses to include assets related to planned protective maintenance activities.

- a proportionate set of COBie data requirements sequentially delivered at key information delivery milestones.


Figure 2. SIMP key aspects

2.3   Standards - Process and delivery

The SIMP supports the development of a standardised and structured process for project delivery. It:

- is aligned with BS EN ISO 19650 parts 1 and 2, and associated standards within the UK BIM Framework.
- enables the contracting authority to establish the project's information standard, production methods and procedures for project team adoption.
- establishes key information delivery milestones from project preparation and briefing through to handover stages. Contracting authorities should align these delivery milestones to key governance, gateway approval, project delivery and procurement requirements.

Available resources to support the SIMP adoption and project implementation are available on the SFT BIM portal. The UK BIM Framework has also produced BS EN ISO 19650 guidance for the industry. Links to both resources are provided in Appendix B.

2.4   Supporting technology – Software and platforms

Core aspects of a collaborative information management process are the sharing, storing and accessibility of information.

A common data environment (CDE) should be established at the project outset to enable the collaborative sharing, delivery, and management of information. An appropriate technology solution should be deployed to host and effectively manage the project information at all stages. The relevant principles of the SIMP are:

- A CDE strategy is developed for all project stages and clearly recorded and communicated to all parties.
- the format, methodology and technology solution upon which project information is transferred to the contracting authority at each information delivery milestone is clearly recorded and communicated to all parties.

3.0 The Standard information management plan

3.1 Overview

The SIMP is split into three constituent parts which includes the dashboard, workbook, and optional templates.
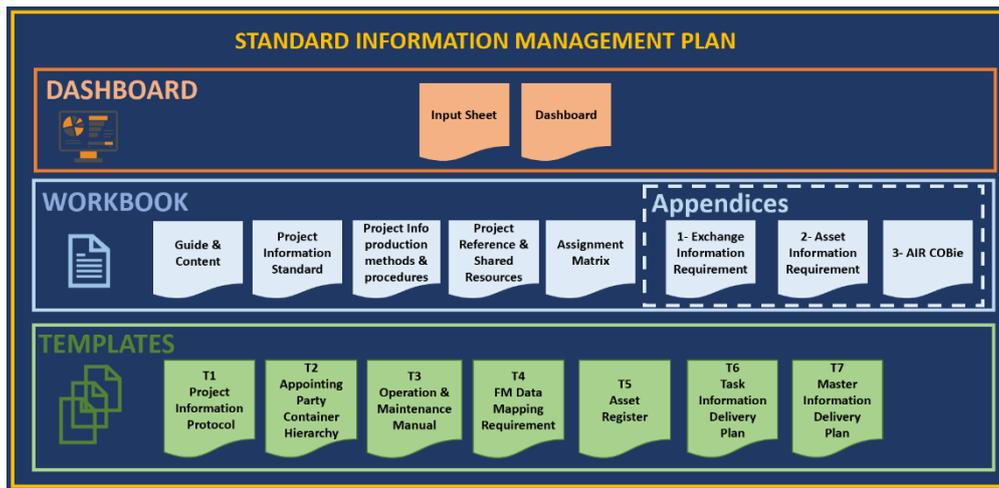
Figure 3. SIMP content and structure

The SIMP has been developed to align with current BS EN ISO 19650 standards, associated UK annexes, industry guidance and best practice as of May 2020.

BS EN ISO 19650 parts 1 and 2 have replaced previous British Standards (BS) and PAS (Publicly available specification) for Building Information Modelling (BIM). The figure 4 below summarises previous, recent, and forthcoming changes:

BIM standards < 2019	BIM standards 2019 >	BIM standards 2020 >
Core Standards		
BS 192:2007+A2:2016 & PAS 1192-2:2013	BS EN ISO 19650-1:2019 & BS EN ISO 19650-2:2019	*No Change*
PAS 1192-3:2014	*No Change*	ISO 19650-3 Operational phase of assets
PAS 1192-5:2015	*No Change*	ISO 19650-5 Security minded BIM
BS 8536-1:2015 &/or BS 8536-2:2016	*No Change*	*No Change*

BS 1192-4:2014	No Change	No Change
As Required		
PAS 1192-6:2018	No Change	No Change
BS 7000-4:2013	No Change	No Change
BS 8541 series	No Change	ISO 22014 and ISO 22057 are under development to supersede BS8541 parts 1-6

Figure 4. Summary of previous, recent, and forthcoming UK BIM Standards

3.2   Project Information Strategy Dashboard

The Project information strategy dashboard has been developed so the contracting authority can understand and establish the information management strategy on their project. This tool should be adopted at the earliest opportunity so the strategy can be used to inform the workbook development and to communicate to all lead appointed parties (*e.g. Architect, Engineer, Contractor*) and wider stakeholders.
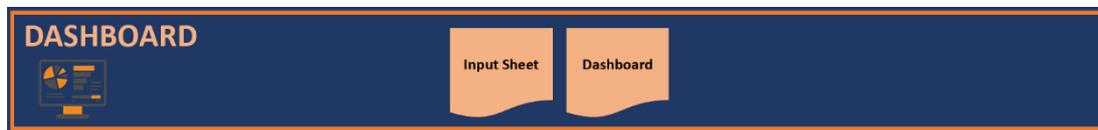
The dashboard has two parts: the data input sheet which captures key project data, and the dashboard which summarises the high-level project information strategy via graphics and tables. It is recommended the dashboard is updated at the end of key project stages, and when new parties become involved in the project. The latest version should be centrally hosted on the CDE and accessible to the project delivery team.
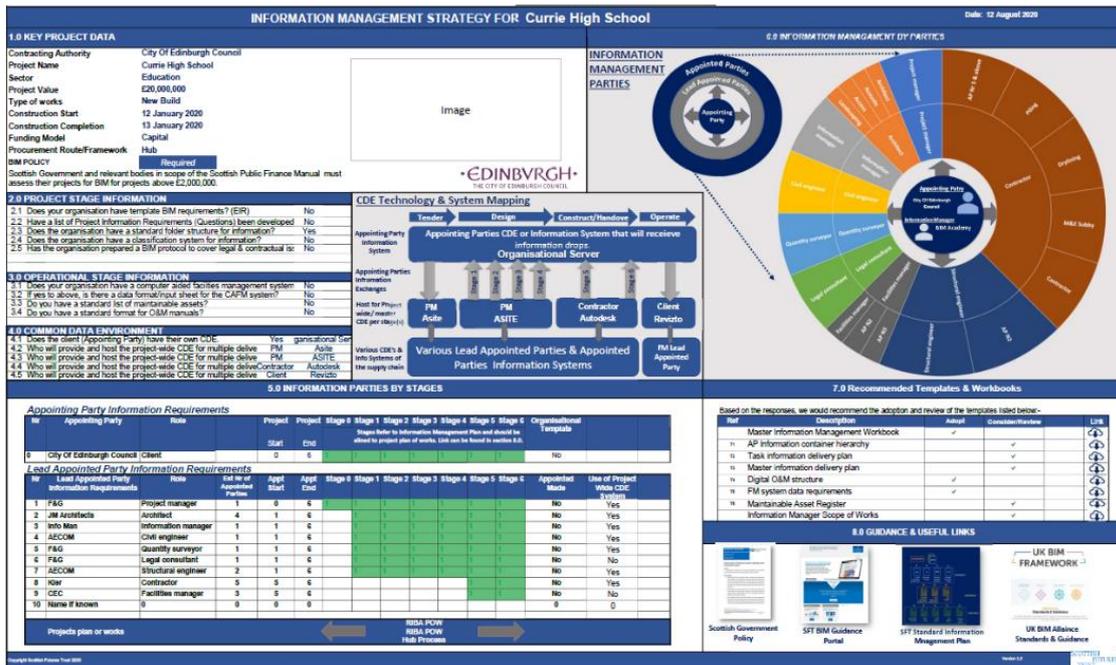
Figure 5. Project information management strategy dashboard

3.3   Information Management Workbook

The Standard information management workbook is divided into sections as illustrated below: -

Within the workbook the contracting authority should refer to text highlighted in [red brackets] which offers specific guidance and instructions for populating blank or red coloured cells. Before tendering the first lead appointed party, the contracting authority should ensure the workbook and associated appendices are fully populated to reflect the project requirements, and all red bracketed text is removed. As noted in section 2.1, the contracting authority should ensure a suitably qualified information manager is appointed to support both the establishment of the project information requirements and the validation of information deliverables at key project milestones.

The main workbook establishes the project information standard, project information production methods & procedures, project reference & shared resources and the information management assignment matrix in alignment with BS EN ISO 19650-2. These sections are

applicable to all parties producing and delivering project information and should therefore be reflected in individual appointments and contract agreements.

The appendices establish the project and asset information requirements to be delivered by the lead appointed parties and their respective appointed parties at each delivery milestone. The contracting authority should populate the SIMP workbook appendix A1 with their master project and exchange information requirements and assign one lead appointed party ('responsible party') to deliver each information requirement at the relevant stage(s). Once complete the 'responsible party' columns can be filtered to generate the information deliverables for each lead appointed party across all relevant project stages. This should be used to inform the appointment of each individual lead appointed party and be included in their contract agreement.

As a minimum it is recommended the workbook is reviewed and updated at the end of each project stage, to reflect any changes to the information requirements, or the appointment of any new party. The latest version of the workbook and master appendices should be centrally hosted on the CDE and accessible to all relevant project team members.

3.3.1 Project information standard

Section 4.0 of the workbook establishes the information standard to be adopted by the project delivery team(s). This section aligns with BS EN ISO 19650-2, 5.1.4 and includes:

- *Exchange of information*
- *Project co-ordinate system*
- *Structuring and classification of information*
- *Level of information need framework*
- *CDE and collaboration*
- *Co-ordination and clash avoidance*
- *Health & Safety and CDM*
- *Operational and asset information delivery*
- *Software requirements*
- *System Performance*

The above list is not exhaustive and may be expanded to reflect other or additional information standards required by the contracting party for the project.

3.3.2 Project information production methods and procedures

Section 5.0 of the workbook establishes the information production methods and procedures to be adopted by the project delivery team(s). The section aligns with BS EN ISO 19650-2, 5.1.5 and includes:

- *Information delivery – generation, review, or approval*
- *Information exchange*
- *Security considerations*

This list is not exhaustive and may be expanded to reflect other or additional information production methods and procedures required by the contracting party for the project.

3.3.3 Project reference information and shared resources

Section 6.0 of the workbook considers the existing reference information and shared resources distributed to prospective lead appointed parties during the tender and/ or appointment process. The section aligns with BS EN ISO 19650-2, 5.1.6 and includes:

- *Existing asset information e.g. OS map, historic drainage records, existing utilities, or services.*
- *Shared Resources e.g. templates, object libraries.*

All reference information and shared resources should be hosted on the project CDE to ensure the information being adopted is the most current and approved version. Where possible, open data standards should be adopted to minimise interoperability issues across different software platforms.

3.3.4 Information management assignment matrix

Section 7.0 of the workbook is an expanded version of BS EN ISO 19650-2, Annex A, Table A.1 and assigns the project information management tasks and responsibilities using a RACI (Responsible, Accountable, Consulted, Informed) matrix. Figure 6 below provides an example:

ISO 19650 terms for Parties	Appointing Party	Third Party	Lead Appointing Party	Appointed Party
Typical industry parties	Client	Information Manager	Architect/ Contractor	Sub-consultant /Sub-Contractor
Confirm the delivery team's BIM execution plan	I (Informed)	I (Informed)	R (Responsible)	A (Accountable)

Figure 6. Example extract from Information management assignment matrix

The workbook matrix should be reviewed and updated by the contracting authority at the project outset. Where an information manager or other 3rd party has designated responsibility for completing an information management task on behalf of the contracting authority, the 'third party' column should be updated to reflect accordingly.

3.3.5 Project and Exchange Information Requirements

Appendix A1 is the key section of the SIMP which outlines the project information requirements (PIR) and exchange information requirements (EIR) for each stage of the project delivery. (*Refer to BS EN ISO 19650-2 clause 5.1.2 and clause 5.2.1*) For each information deliverable this section identifies:

Why the information is required: columns D and E (Appendix A1)

The initial 'why or need' is captured using Project Information Requirement's (PIRs) in the form of simplistic, high-level questions and information requirements. (*Refer to BS EN ISO 19650-2, 5.1.2. Project Information requirements*)

As an example:

Question: Is the project within the approved budget?

Requirement: A project cost plan is required at key decision points 2, 3 and 4.

Appropriate questions and information requirements should be developed by the appointing party (contracting authority) for each project stage and added to the SIMP workbook 'picklist' sheet to enable drop down selection within appendix A1. This task can be supported by the client information manager if appointed.

How it is to be delivered and classified: *columns H-J*

By way of information container-based collaborative working and the adoption of the Uniclass 2015 Project Management table. *e.g. Health & safety file - PM code 70_85_40.* (*Refer to BS EN ISO 19650-1, clause 9. Information container-based collaborative working*)

Using the latest Uniclass 2015 PM table as a resource, the baseline rows (in columns H-J) should be reviewed and refined to align with the adjacent PIR's (column E). Once complete appendix A1 table should represent a master set of exchange information requirements, across all project's stages, for the appointing party and all lead appointed parties. The master set can then be filtered to generate the EIR's for each lead appointed party and inform their appointments.

Which templates are available for use: *'Template available' column L*

References to available templates or links which support the information (container) deliverable. *e.g. cost plan, whole life appraisal tool, O&M manual.*

The level of information need: *columns under 'Statuses' headings*

Refer to section 4.4 of SIMP workbook. (*Refer to BS EN ISO 19650-1, clause 11.2. Level of information need framework*)

The exchange format: *'Information Type' headings & scale column*

Through identification of the information (container) type and required exchange format. *e.g. Design responsibility matrix in Excel, or 2D plan drawings @ 1:200 in PDF*

The information provider: *'Responsible party' columns*

A clear allocation of responsibility for production and delivery of the information (container) via a select list of project parties (lead appointed parties)

When it is required: *'Exchange delivery date' cells & 'Information delivery date' columns*

The SIMP workbook appendix A1 establishes the project's information delivery milestones in alignment with RIBA stages and the contracting authority's key decision points. (*Refer to BS EN ISO 19650-2 clause 5.1.3)* The contracting authority's key decision points are typically linked to design, procurement, financial or business case gateway reviews and stage approvals during the project delivery phase.

Section 1.0 '*Project Information*' of the workbook provides a table to add dates for the client key project decision points. (*see below figure 7, RIBA stage 3*)

Appointing party (client) key project decision points		Date
RIBA stage 1	1	xx/xx/xxxx
RIBA stage 2	2	xx/xx/xxxx
RIBA stage 3	3	29/05/2020
RIBA stage 4	4	xx/xx/xxxx
RIBA stage 6	5	xx/xx/xxxx
RIBA stage 7	6	NA

Figure 7. Key project decision points table. SIMP workbook, section 1.0

Once completed, these cell values auto-populate the corresponding '*key decision point date'* cells in Appendix A1. (*see below figure 8*)

Spatial Coordination		Full Business Case	
Delivery Stage:	RIBA stage 3	**Key decision point date:**	29/05/2020
Information Exchange:	3	**Exchange delivery date:**	e.g. 15/01/2020

Statuses		Information Type						Responsible Party 1. assign to the relevant party using the cell dropdowns. 2. filter at end to establish the individual party deliverables.	Information Delivery Date
Level of Information Need	Security (1-4)	Non-geometric			Geometric				
		PDF	Word	Excel	2D Dwgs	3D Model			
(select / add / update required data below)									
▾	▾	▾	▾	▾	▾	▾	FILTER	▾	▾
Use cell dropdown					Use cell dropdown				
TBC					TBC				

Figure 8. Stage exchange and information delivery dates. SIMP workbook, appendix A1 extract

The *'exchange delivery date'* cell for each stage should be populated with a milestone date for the delivery of all approved information to the appointing party. This can typically be 1 - 2 weeks before the above *'key decision point date'*.

The main appendix A1 table offers an initial pre-defined list of EIR based on a typical RIBA stage 1 deliverable. The table should be reviewed, amended, and expanded to reflect the required information deliverables (containers) for all project stages and lead appointed parties involved. There are two approaches to specifying each information deliverable (container).

- **Prescriptive** – specific content and detailed delivery requirements.
  e.g. fire strategy plans @ 1:100 in .pdf or DDA compliant WC layouts @1:20 at RIBA stage x in 2D .dwg format.
- **Descriptive** - high-level content and delivery requirements.
  e.g. Cost Plan at RIBA stage x, or Health and Safety File at RIBA stage x.

Individual delivery dates should be assigned to each information container, in the *'information delivery date'* column. Some dates may be unknown at the project outset and these will need to be added as relevant lead appointed parties become involved. Establishing individual dates are an important part of developing a delivery teams federation and information delivery strategy across all project stages.

Once appointed, each lead appointed party shall establish a Master information delivery plan (MIDP) which sets out the detailed information deliverables for their delivery team at each project milestone. This is further discussed in sections 3.4.6 and 3.4.7.

It is important to note the SIMP workbook and its requirements do not relieve or reduce in any way the extent in which each lead appointed party (*e.g. contractor, consultant, designer*) or each appointed party (*e.g. sub-consultants, sub-contractors*) should provide their professional services and duties in accordance with their contract agreement. The duty of care and level of skill associated with quality design and information delivery is overarching and this should be firmly established by the contractual provisions within each appointment.

3.3.6 Asset Information Requirements

Appendix A2 table establishes a project list of maintainable assets requiring information for FM and operation and maintenance purposes. The appendix offers a baseline list for a school building derived from typical condition survey, statutory compliance, and best practice maintenance requirements. These are set out at elemental and component levels in accordance with RICS New Rules of Measurement 3 which can be mapped to adjacent Uniclass 2015 System and Product columns for classification purposes.

The contracting authority and relevant stakeholders should review, amend, and expand the baseline list at the project outset, to reflect the known assets (*Which*), known activity (*Why*) and high-level information requirements (*What*). As the project design progresses and there is more certainty on known assets, the master 'Which' list and associated '*Why*' and '*What*' columns should be updated accordingly. The completed appendix should reflect the physical building assets (*systems, elements, components*) which require information for maintenance records and FM activities.

Which: maintainable building assets

Why: the asset requires one or more of the following maintenance activities:

- *Periodical condition surveys*
- *Statutory compliance/ Testing*
- *Planned preventative maintenance*

What: high-level information requirements required in the form of:

- *COBie data deliverable (e.g. for CAFM input and/ or mapping)*
- *Geometrical asset metadata (3D model data e.g. SFG20 code, Asset code)*
- *Operation & maintenance information (to generate the digital O&M manual)*
- *Health & Safety information (to generate the digital H&S file)*

It is recommended the contracting authority assign a suitable lead appointed party to capture, monitor and develop the appendix through the design and construction process, up to the point of handover. Dependant of the project procurement route the responsibility may switch to another lead appointed party at different project stages.

3.3.7 Asset Information Requirements – COBie

Appendix A3 table outlines the Construction Operations Building information exchange (COBie) data deliverables should this be selected as a requirement within appendix A2 - Asset Information Requirements. To ensure a proportionate approach to delivery, the table lists the full COBie schema with a baseline deliverable. This can be reviewed through filtering the 'Data required (Yes)' column.

Contracting authorities and their information manager should review, accept, or adapt the A3 COBie data baseline set at the project outset. Based upon the type of asset identified in appendix A2, appropriate lead appointed parties should be assigned (via the appendix rows and columns) responsibility to deliver the correct COBie parameter data at the required exchange point. Lead appointed parties who typically deliver COBie data on projects are the Architect, Services engineer, and the Contractor. This appendix is high-level and should be used by each Lead appointed party to develop their own detailed COBie delivery responsibility matrix. The below figure 9 summarises the baseline tally:

SIMP Appendix A3 - Status of COBie Data field	Number
Required	94
Optional	65
Not Required	117
Total	**276**

Figure 9. Baseline tally of SIMP COBie data deliverables

The appendix table sets out project exchange points for the sequential delivery of COBie data via 3D models and exported datasheets at the following key stages:

Exchange 3: *At full business case and/ or end of Spatial coordination (RIBA Stage 3).*

Exchange 4: *At contract close and/ or end of Technical Design (RIBA Stage 4).*

Exchange 5: *At the end of construction and pre-handover stage when final installation data has been delivered by the relevant supply chain/ appointed parties.*

The project exchange points align with the information production process, when models, data and information are typical fit for collection and sharing with the contracting authority and the FM team. The exchange deliverables also act as a quality assurance check, ensuring model production and coordination are in accordance with the project information standard, production methods and procedures.

3.4   Information Management Templates

A range of SIMP templates support the implementation of the workbook and capture of the associated information requirements. The following section provides a summary of each supporting template as illustrated below:

3.4.1   T1 - Project Information Protocol

An information protocol template to support the BS EN ISO 19650-2 delivery phase has been published by the UK BIM Framework and available as an optional resource for development into an information protocol for this project	
User	In accordance with BS EN ISO 19650-2, clause 5.1.8, an information protocol should be established at the project outset and subsequently and appropriately incorporated into all project appointments. This includes appointments between the: • Appointing party (client/ contracting authority) and each lead appointed party *(e.g. Architect, engineer, PM, or tier one contractor)* • Each lead appointed party and their own appointed parties *(e.g. sub-consultant, sub-contractor, and any onward supply chain parties)*
Where to download &	A download link to the UK BIM Framework information protocol template is provided in Appendix B. If adopted by the contracting authority and evolved for this project (and

reference in SIMP	within the appointment agreement of each lead appointed party) the document name / reference should be recorded in section 3.2 of the SIMP workbook.
Considerations	When adopting all parties should ensure: - • suitable legal and professional advice is obtained. • a clear understanding of proposed standards and project obligations that are to be adopted.

3.4.2   T2 - Appointing Party Information Container Hierarchy

A developed information container (folder) hierarchy based on the Uniclass 2015 Project Management (PM) table, which enables the contracting authority to specify a structured approach to information storage and transfer during the project delivery process.	
User	Can be used by the contracting authority and forms part of the project information standard for each lead appointed party.
Where to reference in SIMP	If the template is adopted within the project, reference and details should be recorded within the project information standard, section 4.8 of the workbook.
Considerations	When adopting all parties should consider: - • each information container noted in appendix A1 shall be assigned an appropriate classification code and title from the Uniclass 2015 PM table. • each classification code links to other templates and sections of the SIMP. This is outlined further in section 4.3 of the workbook.
Benefits	This template offers the contracting authority a structured approach for the delivery, transfer, and storage of information containers during the project delivery process. It is suited when the contracting authority do not manage their own common data environment (CDE) technology solution and are reliant on an existing, internal EDMS or conventional server. Each lead appointing party will be required to deliver

	their information requirements per the template and classification structure.

3.4.3   T3 - Operation and Maintenance Manual

A digital O&M manual and Health and Safety file template for the structured delivery of asset information pre-handover and onward building operations phase.	
User	Can be used by the contracting authority to digitally deliver planned and structured project O&M information.
Where to reference in SIMP	If the template is adopted within the project, reference and details should be recorded within section 4.8 of the workbook.
Considerations	When adopting, the user should consider: - • the use and alignment of existing information systems and management processes within their organisation. • the avoidance of restructuring the template to support wider consistency. Items not required can be hidden. • what are the required formats, providers, and FM users for each information container.
Benefits	This template provides a consistent approach for the delivery of asset information using an industry recognised classification system. The structure supports digital information delivery and management up to the point of project handover and continued use in the building operations phase.

3.4.4   T4 - FM Data Mapping Requirements

A template for mapping existing FM system data inputs to required project COBie data deliverables (maintainable assets)	
User	Can be adopted by the contracting authority, with input from an in-house FM team or 3rd party FM contractor, to map

	existing FM system data inputs to required project COBie data deliverables.
Where to reference in SIMP	If the template is adopted within the project, reference and details should be recorded within section 4.8 of the workbook.
Considerations	When adopting, the user should consider: - • the use and alignment of existing information systems and management processes within their organisation. • the avoidance of restructuring the template to support wider consistency. • populating and mapping existing system data inputs at the project outset to determine the COBie data deliverables.
Benefits	This template once completed, enables accurate project COBie data to be delivered and mapped into existing organisational FM management systems. A template only needs to be populated once, for each system. FM stakeholders are involved and inform the asset information requirements at the project outset.

3.4.5   T5 - Asset Register

A template which supports the delivery of a structured project asset register and associated asset information requirements.	
User	Can be adopted by the contracting authority, with input from an in-house FM team or 3rd party FM contractor, to establish an asset register and associated information requirements delivered by relevant lead appointed parties.
Where to reference in SIMP	If the template is adopted within the project, reference and details should be recorded within section 4.8 of the workbook.
Considerations	When adopting, the user should consider: - • what data fields are required to support the FM and operation and maintenance activities post-handover. • what asset management systems the captured data will need to be mapped or inputted to.

	• the information management process and responsibilities to be in place to maintain and update the asset register in the operational phase.
Benefits	This template offers a consistent and structured approach upon which the appointing party can define and capture a register of installed assets and associated data, for onward FM purposes.

3.4.6 T6 - Task Information Delivery Plan (TIDP)

This template provides a standard layout for each task team to establish and maintain a list of information (containers) which they will deliver throughout their appointment.	
User	Can be adopted and populated by each task team member.
Where to reference in SIMP	If included within the project, reference should be made to section 5.1 of the SIMP.
Considerations	When adopting the template, the user should consider: - • the minimum content defined in ISO 19650-2, 5.4.4. • the list should clarify what it is they will deliver as part of their scope and appointment. • Information dependencies from other task teams to enable the timely delivery of their own information. • The utilisation of the correct Uniclass 2015 PM code to cross-link information deliverables within the SIMP workbook, appendices and adopted templates.
Benefits	This template offers a structured and consistent approach upon which each task team member can set out the information they will deliver on the project.

3.4.7 T7 - Master Information Delivery Plan (MIDP)

This template provides a standard layout for each lead appointed party to establish an aggregate of Task information delivery plans (TIDP's) from each task team member.	

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User	Can be adopted and populated by each lead appointed party.
Where to reference in SIMP	If included within the project, reference should be made to section 5.1 of the SIMP.
Considerations	When adopting the template, the user should consider: - • the minimum criteria and associated actions defined in ISO 19650-2, 5.4.5. • the MIDP upkeep and update when individual TIDP's are changed during the project, or when additional TIDP's are produced as new parties join the project.
Benefits	This template offers a consistent format upon which each lead appointed party can aggregate any TIDP's produced using T6 – TIDP above.

4.0 The Information Manager

The information manager will play a key role in supporting the contracting authority implement and deliver the SIMP successfully in alignment with BS EN ISO 19650 parts 1 and 2. Dependant on the level of expertise and experience available, the information management appointment can be with a 3rd party, or an additional service to an existing project party appointment. To support, SFT has developed an example scope of services for a client information manager.

The scope of services seeks to ensure four high level deliverables: -

• support the client develop a project SIMP including established project and asset related information requirements.
• manage and develop sets of project information requirements for each lead appointing party for inclusion within each appointment.
• validate the project team's information deliverables at key delivery milestones.
• enable the delivery of accurate as-built digital information models & an O&M manual to support lifecycle asset management.

A key function is to ensure the overall project and asset related information requirements are aligned to the project need, and then assigned to each relevant lead appointed party for delivery at the correct project stage and time. Each set of lead appointed party information deliverables shall form part of their appointment and contract documents. (refer to figure 10)
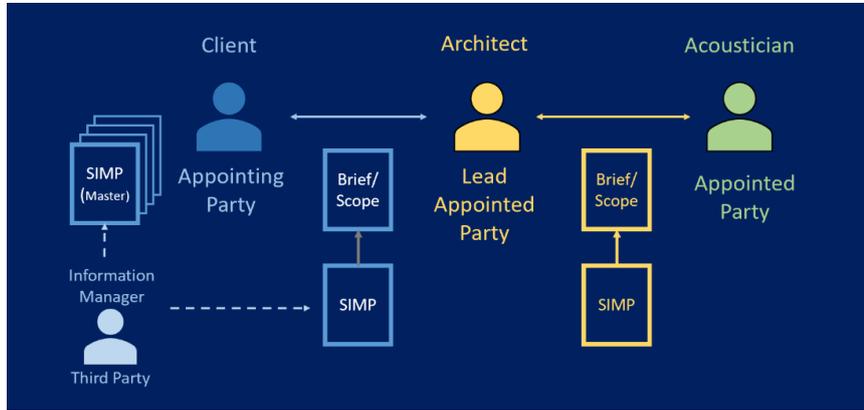

Figure 10. IM role for individual appointment

This approach is repeated across multiple appointments, with each lead appointed party establishing the onward information requirements for each of their own appointed party/ supply chain members. (refer to figure 11)
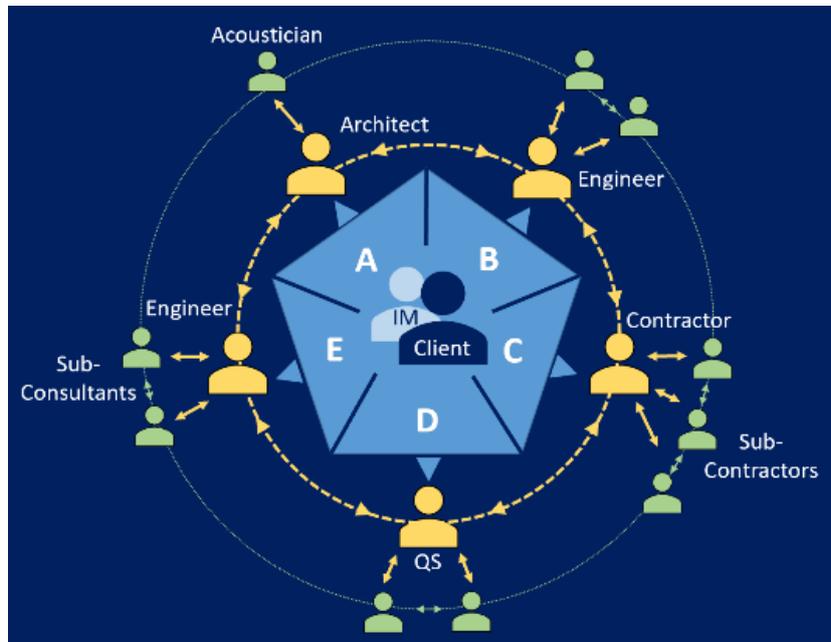

Figure 11. Consistent IM delivery within multiple appointments

Appendix A – List of key terminologies and definitions

Terminology

Common industry reference	BS EN ISO 19650 reference
Employer/ Client/ Contracting Authority	Appointing party
Supplier (e.g. Architect, Contractor Tier 1)	Lead appointed party
Sub-consultant/ sub- contractor	Appointed party
Project delivery team	Delivery teams of task team members
Contract	Appointment
Information files, directories, folders	Information containers

Definitions

Lead appointed party: an ISO 19650 term for a provider of information concerning works, goods, or services. The lead appointed party is directly appointed by the appointing party. Examples include Architect, Engineer, Project Manager, Contractor.

Appointing party: an ISO 19650 term for a receiver of information concerning works, goods or services from a lead appointed party. This is typically, but not limited to be the client / contracting authority, employer, or owner.

Appointed party: an ISO 19650 term for a party appointed on a project to provide information concerning works, goods or services. The appointed party is directly appointed by the lead appointed party. Examples include specialist sub-consultants and/ or sub-contractors.

Common data environment (CDE): a process workflow and digital solution which enables the management of information (*information containers*) during the delivery and asset management stages of a project. During the delivery phase the CDE solution and workflow support the information management process and the development of a federated information model in accordance with BS EN ISO 19650-2, clause 5.6, 5.7, and the National Annex NA.

Information delivery milestones are established deadlines (dates) by the appointing party for required information deliverables, aligned to the project's plan of work (stages) and key decision points.

Information standard: means BS EN ISO 19650-1 and BS EN ISO 19650-2 as may be amended or superseded from time to time.

Project information protocol: an agreement (legal contract) between an appointing party and a lead appointed party and included within each appointment. The project information protocol is also included within all lead appointed party sub-appointments throughout the delivery team(s).

Project information requirements (PIR): defined by the appointing party to establish the information needed to answer or inform high level strategic objectives in relation to the purpose, design and construction of an asset. They are identified from both project and asset management processes and inform the exchange information requirements. A set of information requirements are prepared for each appointing party key decision points.

Asset information requirements (AIR): are relative to the operation and maintenance of an asset and set out the detailed information needed by the appointing party to effectively manage a physical asset during its lifecycle. During design and construction stages the project AIR will form part of the EIR to deliver related information for asset handover and onward operational management purposes.

Exchange information requirements (EIR): derived from the project and asset information requirements as information to be delivered (exchanged) by respective lead appointed parties to the appointing party (client) at key project delivery milestones. Each EIR is appointment specific and forms part of the invitation to tender pack for each lead appointed party.

Appendix B – List of resources and national guidance

Industry Resource	Link
SFT BIM Guidance Portal	https://bimportal.scottishfuturestrust.org.uk/
SFT BIM Portal - SIMP	https://bimportal.scottishfuturestrust.org.uk/level1/stage/8/task/64
UK BIM Framework	https://ukbimframework.org/standards-guidance/
UK BIM Framework Information Protocol template	https://ukbimframework.org/wp-content/uploads/2020/06/Information-Protocol-to-support-BS-EN-ISO19650-2.pdf
International BIM Standards Transition	https://www.cdbb.cam.ac.uk/BIM/ISOTransition
SFT BIM Return on Investment Tool	https://bimportal.scottishfuturestrust.org.uk/page/roi-calculator
BSI – BIM -Building information modelling – ISO 19650	https://www.bsigroup.com/en-GB/iso-19650-BIM/
Uniclass 2015 tables	https://www.thenbs.com/our-tools/uniclass-2015