



Project Information Handover Initiative

Summary observations and adoption guidelines



Table of Contents

Executive Summary.....	2
Introduction	3
Background	3
Standard Information Management Plan.....	3
The SIMP handover requirements and LEIP	4
Client hand over setup variants	5
Scenario B – Asset management portal.....	7
Observations & Guidelines	7
Observations	8
Stakeholder guidelines	9
- Clients (including client representatives)	
- Client Information Managers	
- Contractors	
Conclusion.....	12
Appendix A – SIMP & project information handover resources	13
Appendix B - LEIP projects completed to date	14

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Executive Summary

The Scottish Futures Trust (SFT) project information handover initiative, established in September 2020, addresses the lack of a standardised approach for delivering quality handover information on Scottish public sector projects. Key components include:

- *Development of a Standard Information Management Plan (SIMP) aligned with BS EN ISO 19650.*
- *Implementation of a unified classification system (Uniclass) and standardised folder structure.*
- *Mandatory adoption for Learning Estate Investment Programme (LEIP) projects.*
- *Establishment of a client information manager (CIM) role.*
- *Development of various client handover setup scenarios, including a SharePoint/Power BI asset management portal.*

The initiative aims to improve construction quality, establish baseline specifications for digital asset registers and O&M manuals, and ensure the handover of quality health and safety information. Despite early challenges in adoption, the initiative has instigated a national, sectoral and cultural shift towards digital delivery of quality information handovers, to improve onward operations and management of the public sector estate.

If you're interested in contributing to the project information handover initiative or would like to provide feedback on this document, we welcome your participation. Please reach out to us through our email bimdeliverygroup@scottishfuturestrust.org.uk

Introduction

The objective of this document is to provide an overview of the SFT project information handover initiative and its resources, summary observations from recent project implementations, and new guidelines for clients, information managers and contractors to support improved adoption and delivery outcomes.

Background

The project information handover initiative was established by SFT in September 2020 to address a long-standing industry issue, namely, there being no common approach for the delivery of quality handover information, at the completion stage of public sector projects in Scotland.

A collaborative working group of Scottish local authorities, contractors and industry representatives initially considered the pertaining issues, and based upon industry best practice, developed a baseline specification for the production and delivery of digital handover information on new projects.

A link to access a case study of the working group outcomes is available in Appendix A.

Standard Information Management Plan

The group's outputs were incorporated into version 2 of the Standard Information Management Plan (SIMP), a resource developed by SFT to support public sector clients specify their project and asset information requirements in alignment with BS EN ISO 19650 parts 1 and 2.

A key function of the SIMP is to identify and align project information requirements with a client's organisational outcomes. The following figure 1 highlights three specific outcome areas developed by the working group. These are:

- *Improve construction quality and the delivery of accurate record information by the contractor.*
- *Establish a baseline specification for the delivery of digital asset registers and operations and maintenance manuals, to improve asset management in-practice.*
- *Ensure the handover of quality health and safety information, to enable the safe and compliant operational management of new public sector buildings.*

Links to access the range of the project information handover resources are available in appendix A.

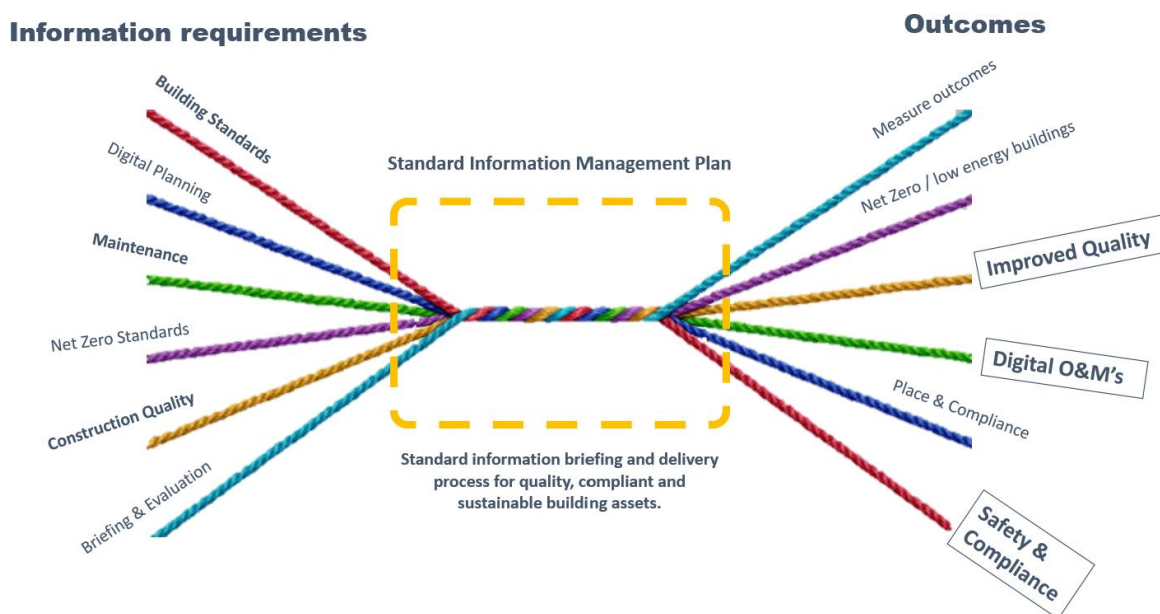


Figure 1

The SIMP handover requirements and LEIP

The adoption of the SIMP and its inherent information handover process is a mandatory funding condition on all Scottish Government's Learning Estate Investment Programme (LEIP) projects.

Part of the funding condition requires that local authorities appoint client information managers at the project outset. This ensures clients have available expertise and support to adopt and implement the SIMP across all project stages. This support specifically targets the briefing stage when the project requirements are being defined, during the design stages when project information and data deliverables are checked for quality assurance, and at the project completion stage, when the contractor provides the final handover information.

A template scope of works was developed by SFT to inform the client information manager role, appointment criteria and service requirements. A link to access the template is available in Appendix A.

It is a further requirement for each LEIP project to adopt the standard information handover strategy, as indicated in figure 2. This includes the use of specific SIMP templates, the adoption of Uniclass - a unified classification system for the construction industry, and a standard folder structure, to facilitate the storage and transfer of project information files between a client's and other project document management systems.

The SIMP handover approach has initiated a sectoral and cultural shift across client organisations and industry, and through its adoption, is ensuring the digital delivery of quality information handovers on LEIP and wider public sector projects.

Handover strategy

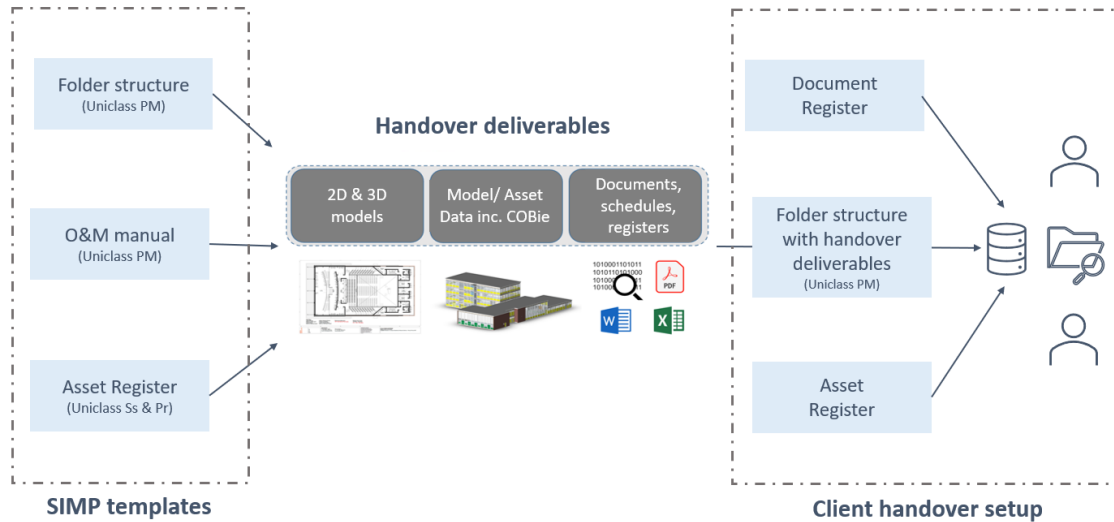


Figure 2

Client hand over setup variants

To support adoption, SFT has been regularly holding consultation and feedback sessions with LEIP clients, information managers and contractors. In late 2023, SFT conducted a desktop survey to determine what document and asset management systems would be in use by clients at the handover stage of each LEIP project. The below table presents the findings.

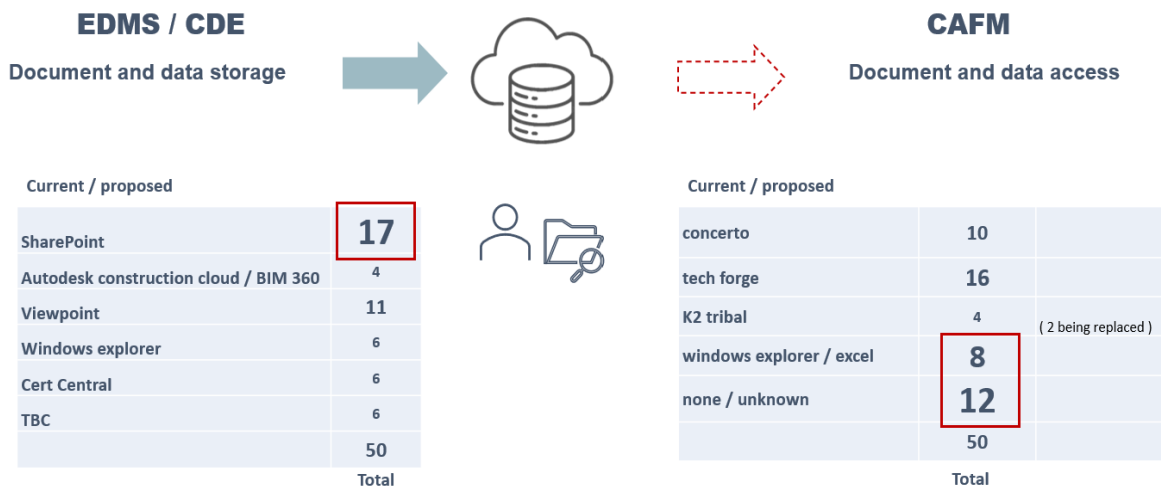


Figure 3

The findings were used to create four suggested scenarios for client handover setups. (refer to figures 4-7). Each scenario enables clients and their information managers to consider which option best aligns with their organisational needs and capabilities. Such considerations might include:

- *What are our current digital skills and maturity level for hosting and managing digital information?*
- *What technology management systems are already in-house, in-use and in-contract?*
- *What budget and resources are available for the hosting and upkeep of the new project information post-handover?*

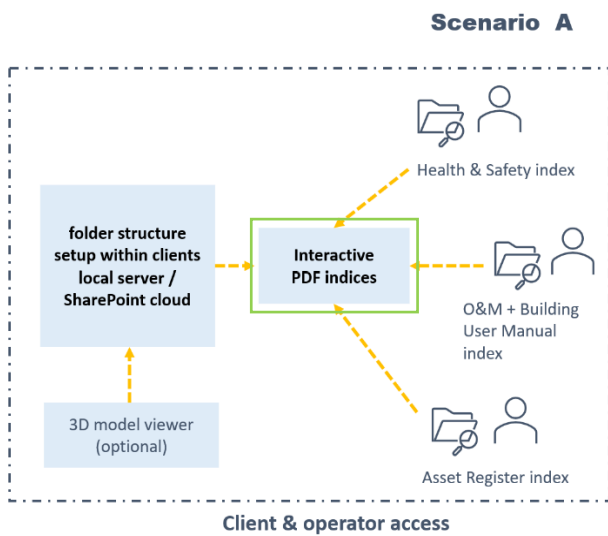


Figure 4

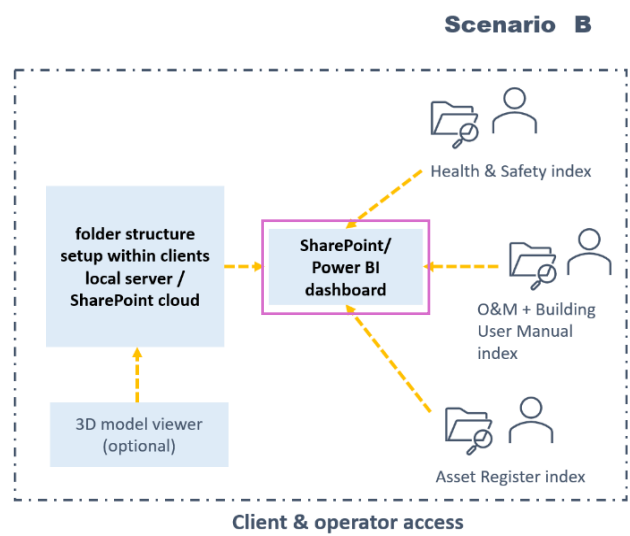


Figure 5

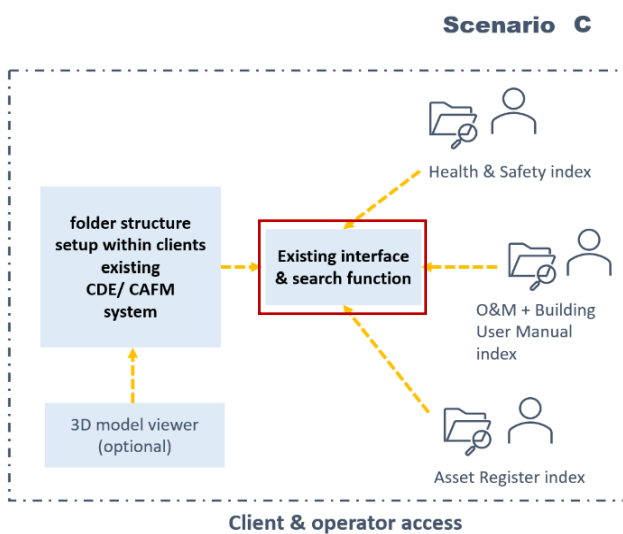


Figure 6

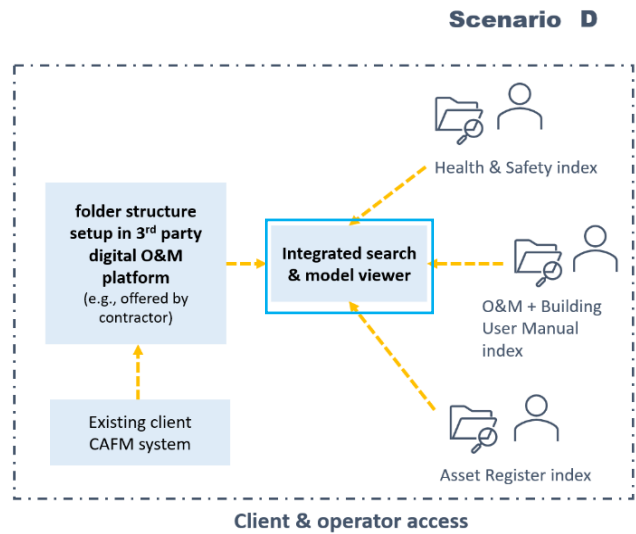


Figure 7

Scenario B – Asset management portal

Resultant from the red box survey numbers in figure 3, SFT decided to grant-fund the development of a minimum viable product (MVP) for the SharePoint/ Power BI scenario. (figure 5)

This decision is timely, as most Scottish clients and local authorities already own Microsoft (MS) licenses and are using MS 365 tools within internal departments and teams.

A LEIP project was chosen, based upon its then current design stage, the ability to adopt SIMP version 2, and the local authority’s existing MS 365 use and capabilities.

A Microsoft accredited consultant was appointed to support the development, delivery, and test deployment of the new resource. Its primary function and solution was to:

- *host and share the SIMP project handover information using the local authorities existing MS 365 license and SharePoint tenancy,*
- *enable the property documentation and asset data to be easily updated during the operations phase,*
- *make the resource accessible to internal and external users using MS security settings.*

Up to September 2024, the solution was developed, tested and ready for deployment onto the authority’s tenancy. The aim is to extend the same deployment opportunity to other interested Scottish authorities and public sector owners by the end of 2024. An image of the portal home page is shown below.

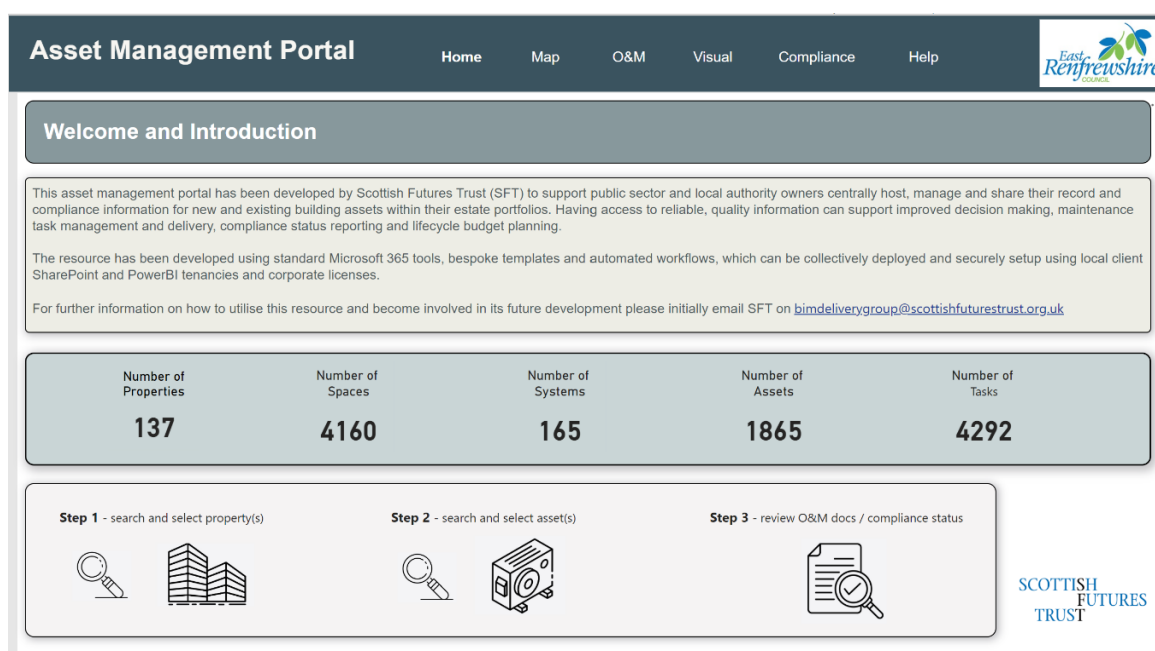


Figure 8

Observations & Guidelines

To date, the number of LEIP projects completed, or due for completion at the end of 2024, is 10. A list of these is available in Appendix B.

In 2025, the number of LEIP projects scheduled for completion and handover is 17.

Through valuable feedback sessions from the projects completed thus far, SFT have been able to capture stakeholder insights and lessons learnt which have been distilled into observations and guidelines in the following sub-sections.

A case study of a LEIP project which successfully delivered a timely, digital information handover is available to access in Appendix A.

Observations

From the feedback sessions, it is evident the requirement to deliver handover information in a digital, structured format, has been, and continues to be an ongoing challenge for design teams and contractors.

The challenge has increased when the project information requirements have not been clearly specified by the client at an early enough stage, and when known, have not been clearly disseminated to the right teams or people within the project design and contractor organisations.

Furthermore, variant levels of maturity and resources amongst LEIP authorities have hindered the ability to setup appropriate environments to host and manage the digital handover information post project completion. There are instances of 2023 and 2024 LEIP projects experiencing delayed or partial digital handovers. Several authorities have established short-term agreements between themselves and contractor 3rd party O&M providers to host the handover information for 1-2 years, or up to the end of the defect's liability period. This is not an ideal or long-term, acceptable solution.

It is the LEIP programme office's expectation that all 2025+ projects will complete their SIMP information handovers on time, in alignment with the respective construction programmes and practical completion dates.

For this to be attainable, it is necessary for clients, information managers and the project delivery teams to fully engage and collaborate throughout the full project period. There must be early clarity in what information is required at the handover stage, and who should be delivering it and when. The deliverables should be contractual and cascaded right down through the supply chain, to trade package suppliers and installers.

SFT has captured numerous observations and feedback which have been developed into the following guidelines for the respective stakeholders.

Stakeholder guidelines

Clients (including client representatives)

1. Clients, local authorities and regional delivery hub co' need to appoint client information managers (CIM) early on projects. It is the role of the client information manager to assist authorities and internal asset management teams to establish appropriate, project and asset information requirements for inclusion within the SIMP. Appointing CIM's late will increase the risk of the projects information requirements being defined too late and not included within project teams scopes and contracts.
2. It is important that all client-side stakeholders who require information deliverables are involved in the development and specification of these within the project SIMP. This may require cross-departmental engagement and collaboration, which can be supported by the client information manager. When considering what project and asset information is needed, only ask for what is required, this will avoid over-complex deliverables and increased delivery scopes and fees from the project teams.
3. Client/ authorities need to brief their asset and space naming standards at the project outset. This is essential so all the project handover information is produced and delivered in a coordinated and relational manner. It will also ensure the physical building room signage is aligned with the final record information, drawings and asset register.
4. Client / authorities should confirm their asset information handover and management strategy at the earliest project stage. This should include any contractor file, document, metadata exchange requirements, and also how the digital O&M, health & safety and handover information will be hosted, managed, and kept up to date during the building lifecycle. The strategy should consider and outline any IT security constraints and document control procedures for internal (e.g. *local authority, departments*) and external (e.g. *main contractor, building operators*) user access.
5. Design team and supply chain scopes should clearly articulate their project information production and delivery responsibilities. From the feedback thus far, two failing issues are:

- a. the requirement for all 2D/ 3D project information to be classified (Uniclass) per the SIMP information standard at RIBA project stages 2-6. This is essential for structured information delivery and the sequential development of the asset register and data across the project stages.
 - b. a retained service requirement to update the construction information to reflect any changes which have occurred on site during the construction phase. e.g. *The architects to update the 3D model and/ or 2D plans and schedules, per final mark-ups provided by the contractor.*
6. Client/ authorities should ensure there are appropriate protocols and procedures in place to assess the design team and contractor's competency and capabilities to produce and deliver the SIMP project information requirements. This should occur at tender, pre-appointment stages.
7. Regular audits should be completed on the design team and supply chains information deliverables. This is essential during RIBA stages 2, 3 and 4, when design information is being developed up to a pre-tender/ novation stage. This is to avoid contractors becoming responsible for the ownership of poor quality or non-compliant 2D/ 3D information post contract award. Client information managers can provide guidance to the design team and complete the audit and reporting tasks on behalf of the client authority.
8. Tendering contractors should be provided with the project SIMP workbook, so they have an understanding of the clients information requirements and the delivery / handover strategy. There have been instances on LEIP projects where contractors weren't issued with the SIMP documentation until after the contract award.

Client Information Managers

9. Engage with client / authority stakeholders from the outset to capture the project and asset information requirements within the SIMP resources. This engagement includes, but not limited to, client delivery teams, project managers and internal asset management teams. Make sure the client / authority are aware of any resultant risks and consequences for not being able to conduct and complete any SIMP, information management or handover related tasks at the earliest, opportunity. Work with the client/ authority to best mitigate any identified issues.
10. Work with the client to establish the project information handover strategy and delivery criteria. This will include, but not limited to, the information deliverables exchange, hosting environment, asset register format, 2D/ 3D classification

assignment, asset-space naming and onward asset data integration into existing technology platforms; e.g. CAFMs. Record this within the project SIMP workbook so all stakeholders are aware of what has been agreed.

11. Ensure the client / authority are fully aware of the delivery and cost consequences of specifying highly technical or time consuming handover requirements. One example on recent LEIP projects is a requirement for the contractor to laser scan the whole building on completion. Clients / authorities should be fully aware of the time and cost implications of such requirements, and have an established purpose or outcome for the need.
12. Establish regular comms with the design team, ensuring they are aware of the baseline model production and data delivery requirements at key project stages. In particular, it is vital the correct level of Uniclass classification, space - asset naming and COBie (asset data) assignment is clearly defined within the project SIMP workbook. This should then be used to develop a benchmark for completing the project stage audits and reports. Project stage audit reports and issues should be shared with the client and design teams. The reports should also be shared with the contractor at the tender / post contract award stage.
13. Collaborate with the client team and contractor to test the agreed information delivery and handover strategy. This should include the test exchange of files, documents and metadata transfer from the contractor to clients CDE (Common Data Environment) or other cloud-based document management systems. Ensure this is completed at the earliest opportunity following the contractors appointment. Support the resolution of any arising quality or technical delivery issues discovered through the test exchanges.

Contractors

14. It is critical that suppliers and installers scopes include the requirement to deliver their respective information handover sets by the completion of their site works, contracts, or prior to project completion. (*whichever is sooner.*)
15. Ensure that the contractor delivery teams and supply chain managers are fully aware of the information handover requirements. This includes, but not limited to, O&M, health and safety documentation, as-constructed 2D/3D models, information classification assignment and asset data delivery. Conduct regular checks on package suppliers/ installers to ensure their information deliverables are being produced as required and delivered on time.

16. Have a designated role and support team within your organisation to manage, oversee and complete the tasks of capturing, checking, and collating the project handover information in alignment with key construction stage/ package completions.
17. Establish your CDE setup, metadata, and handover transfer strategy early. Within any client shared area, set up the information container arrangement per the SIMP project folder structure (*Template 2- based upon Uniclass PM table.*) Agree and establish the document transmittal sheet format as this may contain certain metadata values required by the client / authority.
18. Complete test documentation and data transfers with the client and their information manager prior to each information exchange point. Collaborate with the client and their information manager to quickly resolve arising quality or technical delivery issues.

Conclusion

The SFT project information handover initiative represents a significant step towards standardising and improving the quality of project handover information on Scottish public sector projects. Whilst implementation has faced challenges, particularly in terms of varying levels of digital maturity among stakeholders, the initiative has already begun to transform industry practice.

Key outcomes and future directions include:

- *Increased awareness of the importance of structured, digital handover information.*
- *Identification of best practices and common challenges through completed LEIP projects.*
- *Development of tools and resources to support adoption, such as the SharePoint/Power BI asset management portal.*

As more LEIP projects reach completion, the lessons learned and best practices identified will further refine the initiative. The continued focus on early engagement, clear communication of requirements, and collaborative working will be crucial for the long-term success and widespread adoption of this standardised approach to project information handover.

Moving forward, SFT and stakeholders will provide ongoing engagement and implementation support, and the regular review and updating of the resource tools and guidance to ensure the initiative remains relevant and effective in evolving digital construction and asset management sectors.

Appendix A – SIMP & project information handover resources

Project Information Handover Working Group Case Study – [Link](#)

LEIP Case Study: Montgomerie Park Primary School, Irvine – [Link](#)

Client Project Information Manager Scope of Services – [Link](#)

Project Information Requirements workbook (sample) – [Link](#)

Asset Register workbook (sample) – [Link](#)

Asset Register workbook task matrix – [Link](#)

Client Information Container Hierarchy (Uniclass PM folder structure) – [Link](#)

O&M Manual template – [Link](#)

Facility Management system data mapping – [Link](#)

Project Handover Checklist – [Link](#)

Master Asset List – [Link](#)

Project Asset Naming Conventions – [Link](#)

Appendix B - LEIP projects completed to date

2023

Authority	Project	LEIP Phase	Delivery Route	Contractor	Completion
Perth & Kinross	Riverside	2	Hub	Robertson	April
East Lothian	Wallyford	1	Hub	Morrison	June
West Lothian	Beatlie	1	Hub	Morrison	August
South Ayrshire	Maybole	1	Hub	Morgan Sindall	August
East Renfrewshire	Neilston	1	Design & Build	Heron Bro	November

2024

Fife	Dunfermline	1	Hub	BAM	June
West Lothian	East Calder	2	Hub	Morrison	June
North Ayrshire	Montgomerie Park	2	Hub	Robertson	July
Highland	Tain	1	SPA	Kier	December
East Ayrshire	St Sophia's	2	Two Stage Traditional	Flemings	December