

Okana

Let's shape tomorrow

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The role of IM in the Golden Thread

Tall Buildings North



Hello!



Dr Melanie Robinson
Associate, Strategy & Intelligence Lead

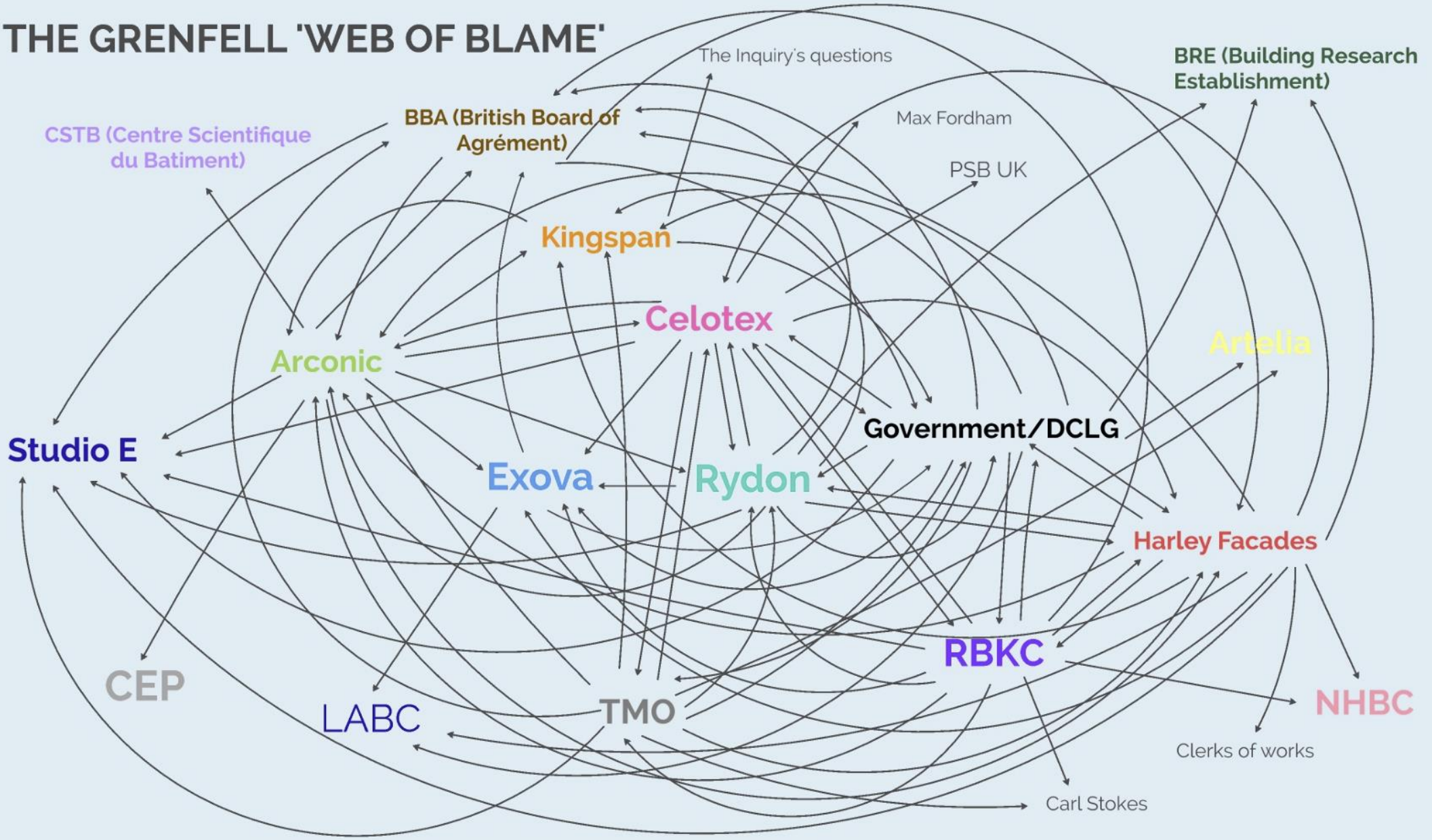
- What is the golden thread?
- The role of BIM / IM
- What good looks like in practice

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What is the golden thread?

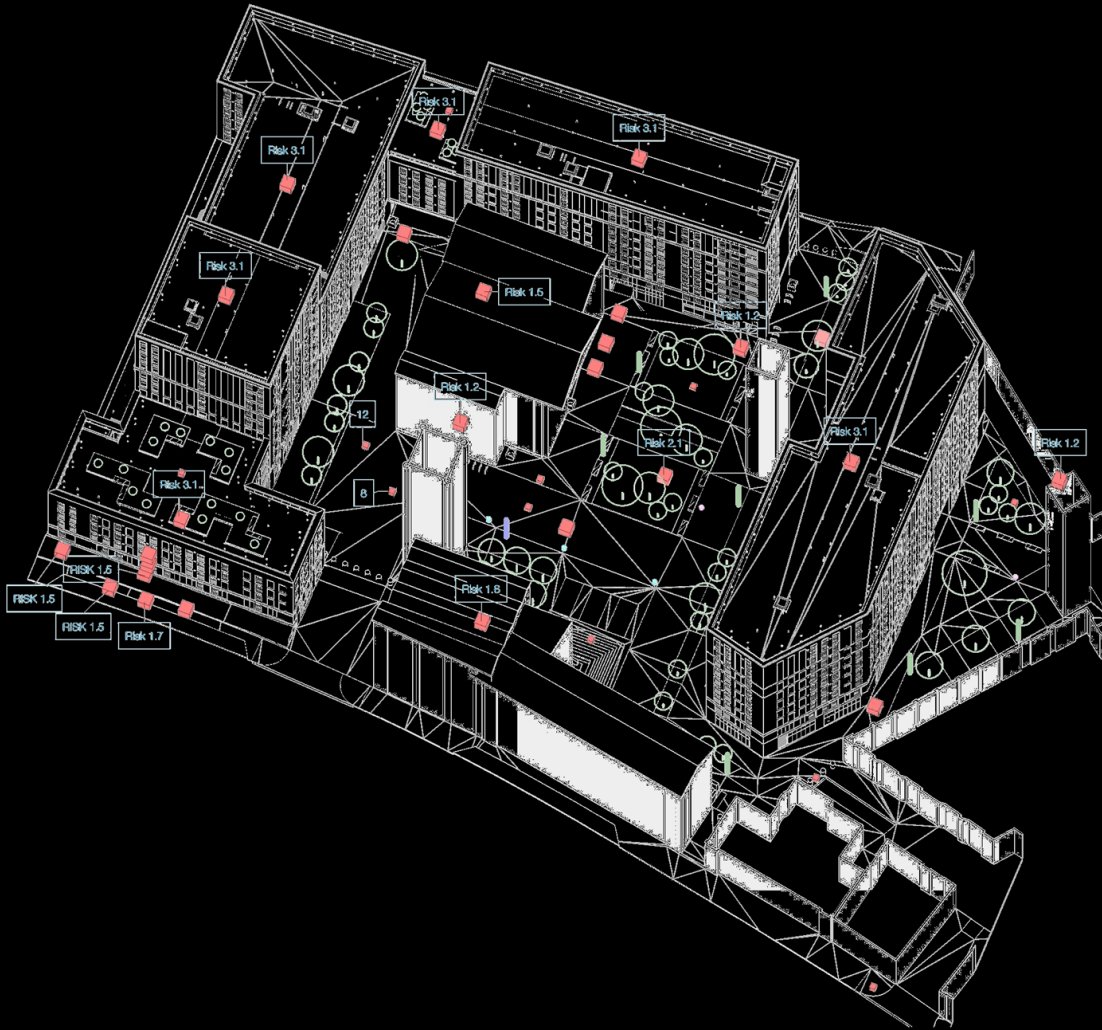


THE GRENFELL 'WEB OF BLAME'



Introduction

What is the golden thread?

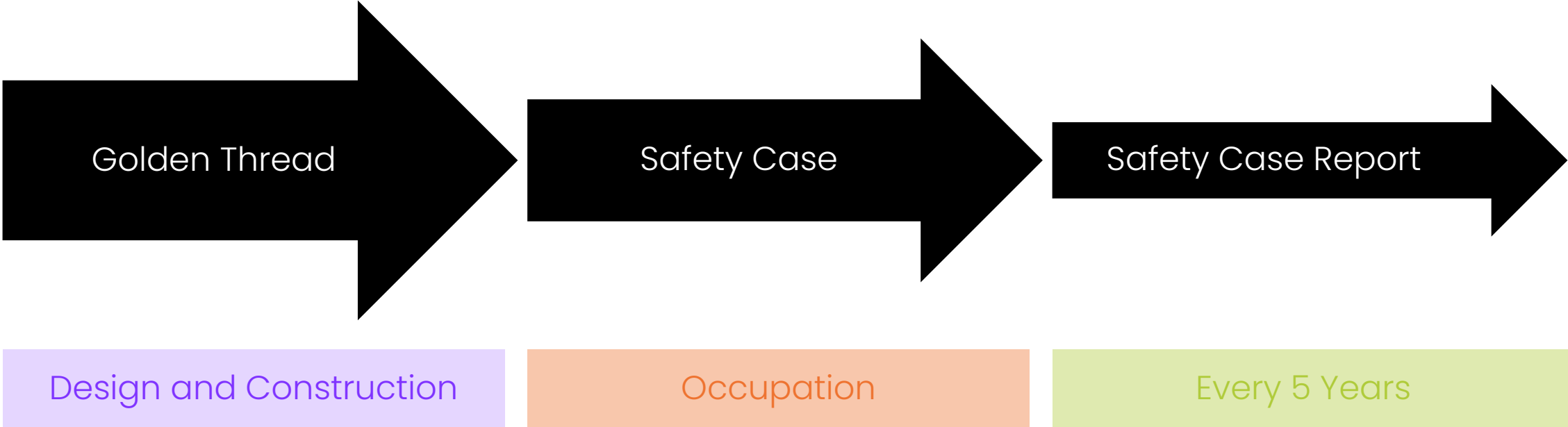


Underpinning these gateways is a commitment to The Golden Thread.

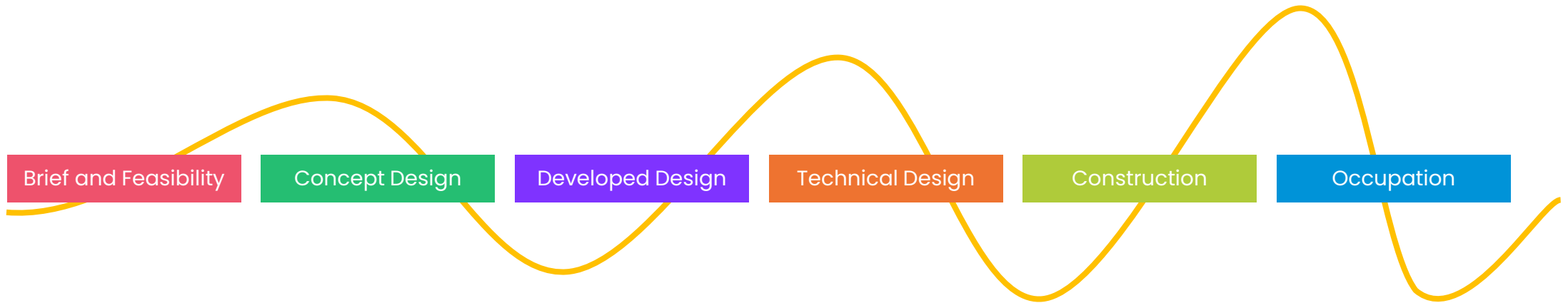
“The Golden Thread is the information that allows you to understand a building and the steps needed to keep both the building and people safe, now and in the future.”

The Golden Thread will be held digitally to ensure that the original design intent and any subsequent changes to the building are captured, preserved and used to support safety improvements.

Golden threads to safety cases



Building the golden thread



(Distributed) Common Data Environment

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A building can only be safe if it can be understood

So, with that in mind...

Can we prove what was **designed**?

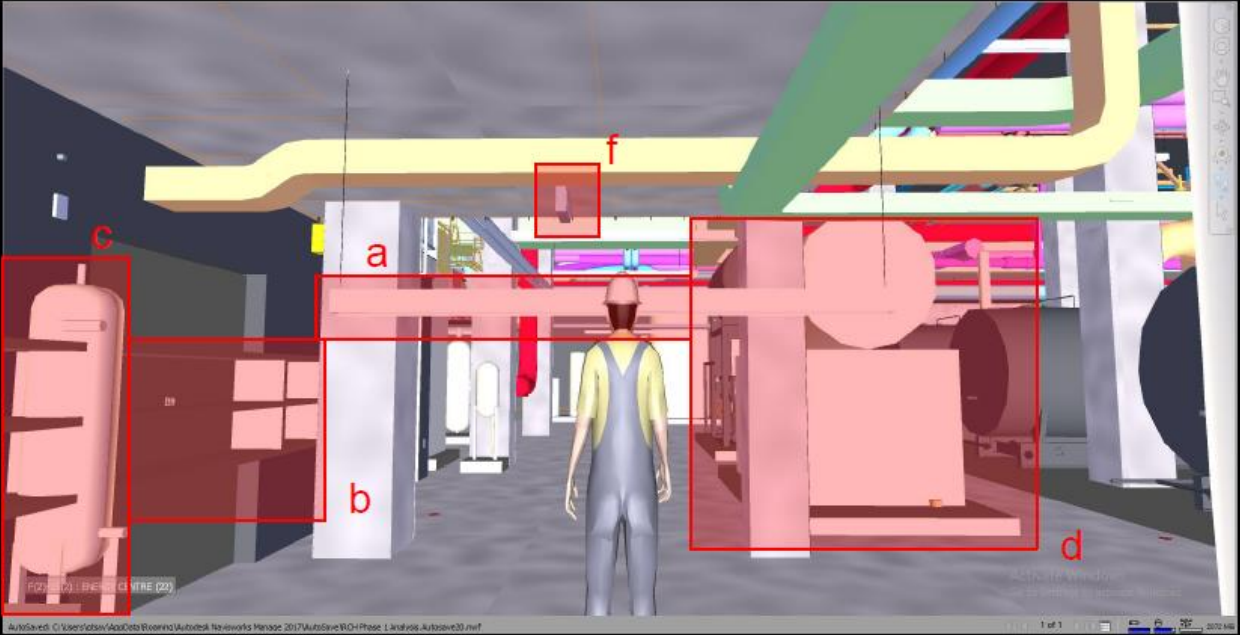
Can we prove what was **built**?

Can we prove what **changed**?

Can we prove **who knows what, and when**?

As-designed versus as-built

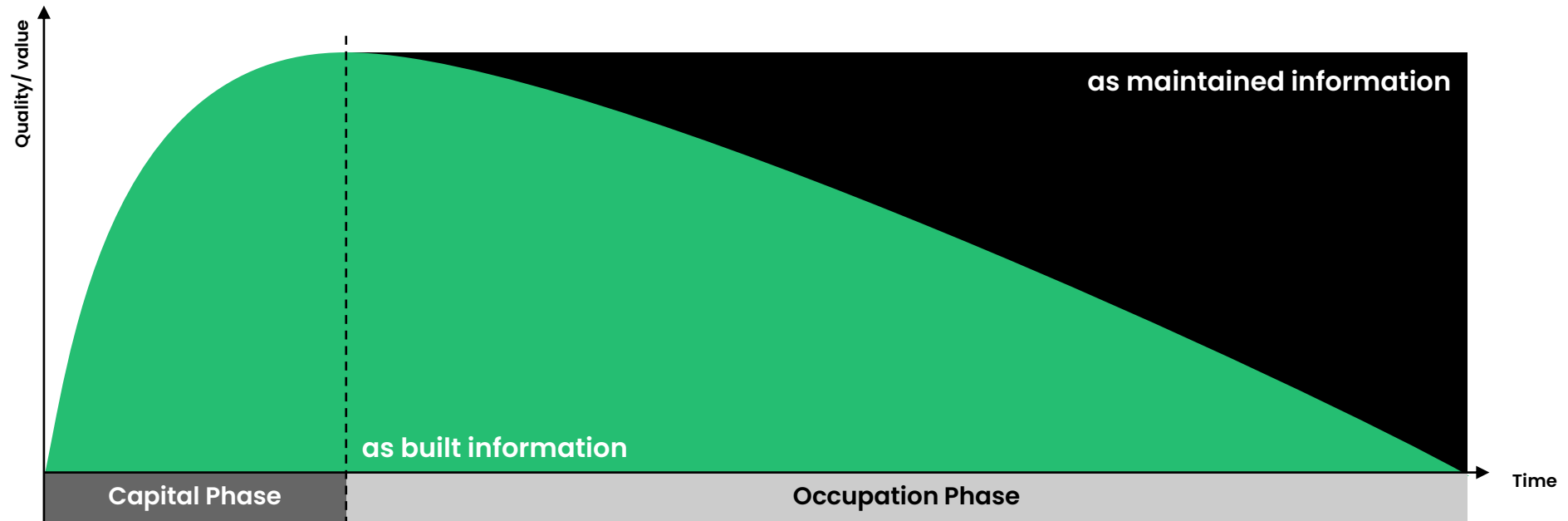
Design Models



As-built



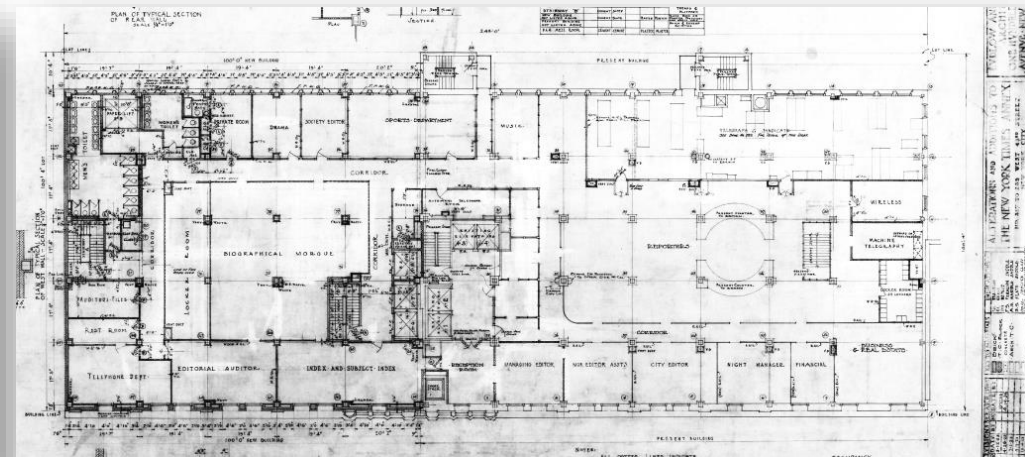
As-designed versus as-built versus as-maintained



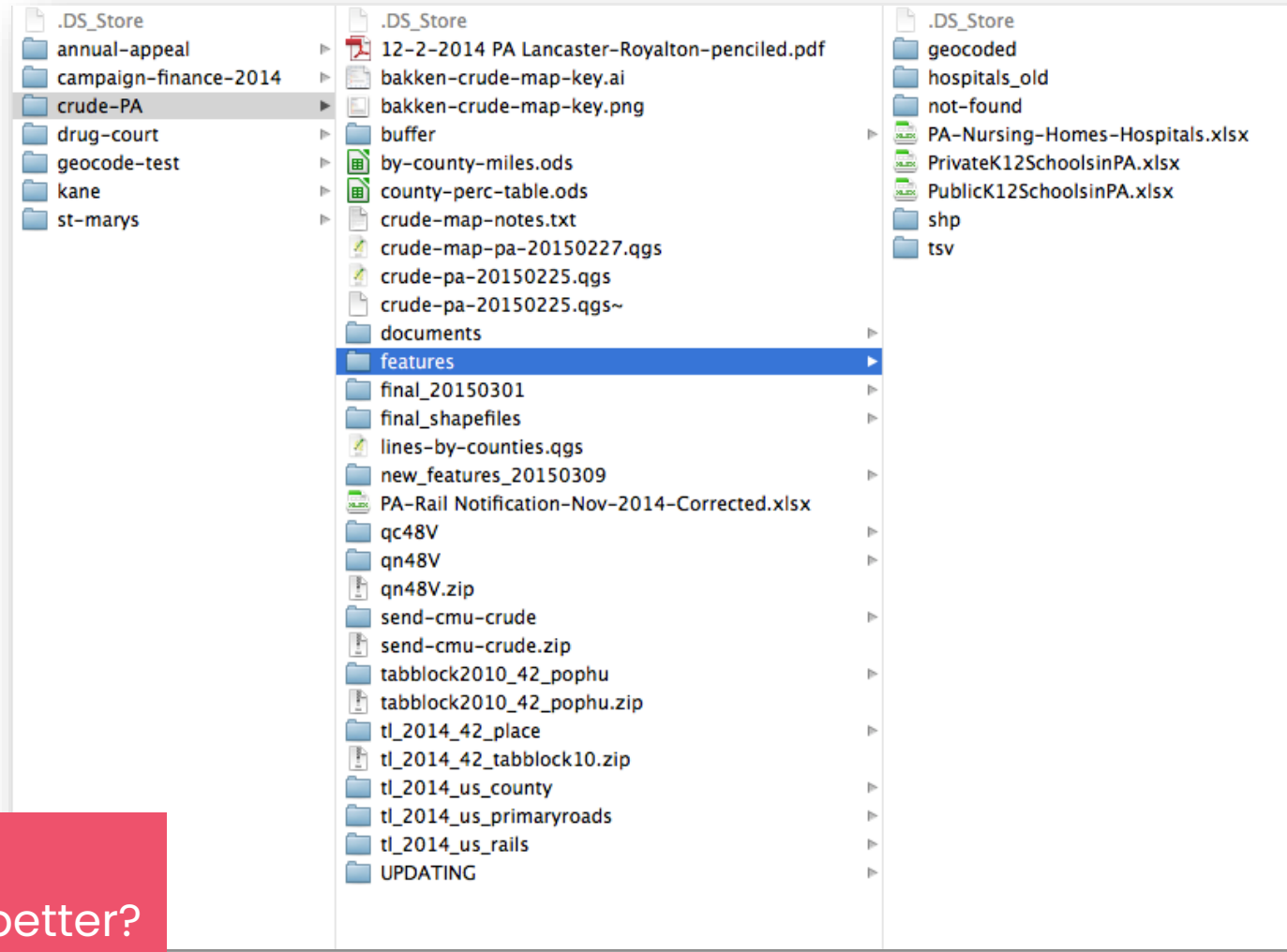
The quality of **as built information** deteriorate over time, and it becomes less reliable.

The quality of **as maintained information** always remains high, and it is always reliable.

Why does it matter?



Why does it matter?



Is this any better?

...because it adds up

Why you should care

Lost Productivity – 6+ hours!

Average time spent searching the shared drive
each week for information



Our survey sample of 108 colleagues spend a total of 334 hours a week searching for work documents.

The right hand side of this pie chart shows nearly half surveyed spend no more than 2 hours a week searching – that's good news. However the other half of the pie chart shows more people spending much longer.

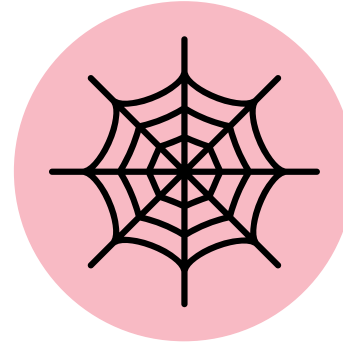
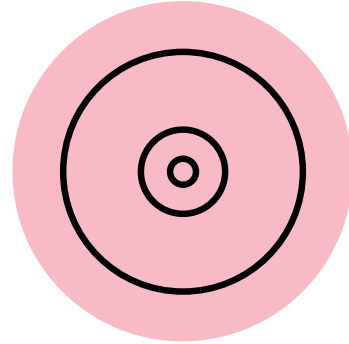
Most concerning is that 13 colleagues admitted to spending at least 6 hours a week searching – that's 76 hours in total. These people are not carrying out work duties whilst searching.

Put another way, Estates and Facilities is paying the equivalent of two full time staff to spend a week looking for information.

...because it adds up

In general...

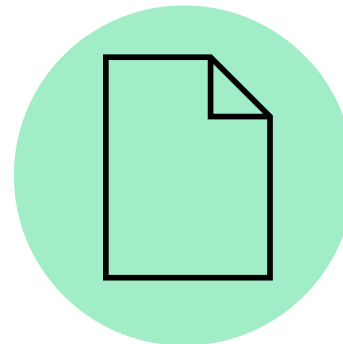
One person creates **1.7mb of data/second**, which equates to 10 full DVDs in a working day.¹



In a typical organisation, up to **65% of data generated is never used** and up to 15% is out of date.²

In construction and engineering...

13% of working hours are spent looking for project data and information.³



In construction and engineering, **96% of data goes unused** and 90% is unstructured.³

The role of BIM / IM



Let's start with the elephant in the room.

A man in a dark pinstriped suit is sleeping at a desk. His head is resting on his hand, and he has a weary expression. Two coffee cups with brown sleeves and black lids are on the desk in front of him. A computer keyboard is partially visible in the foreground. The background is a plain, light-colored wall.

BIM Fatigue is real.

But, we all need Information Management.

What is BIM?

**Building
Information
Modelling**

BIM

BIM

**Better
Information
Management**

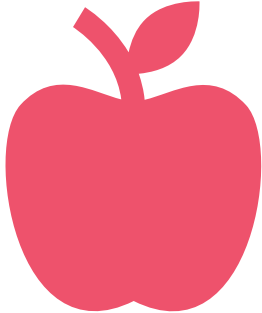
What is BIM?

Ultimately, BIM is a **database** which typically utilises object-based modelling to provide the interface with the information.

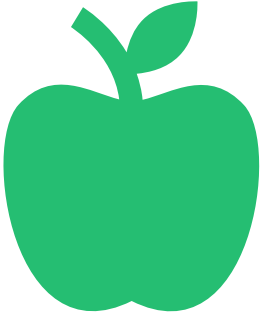
Even if the client doesn't interact with the 3D environment after handover, they still want **relevant, valid information** within their O&M manual.

They would still need **structured spatial and asset hierarchies** and **consistent naming conventions** to effectively manage their built and maintainable assets.

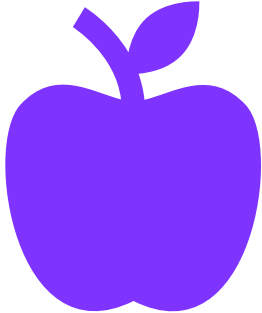
What is BIM?



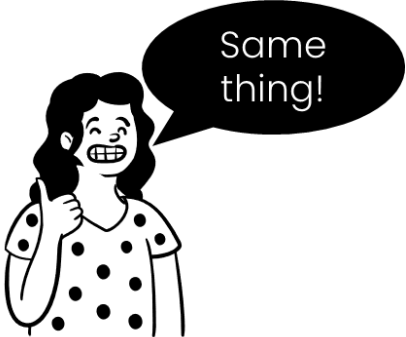
Apple



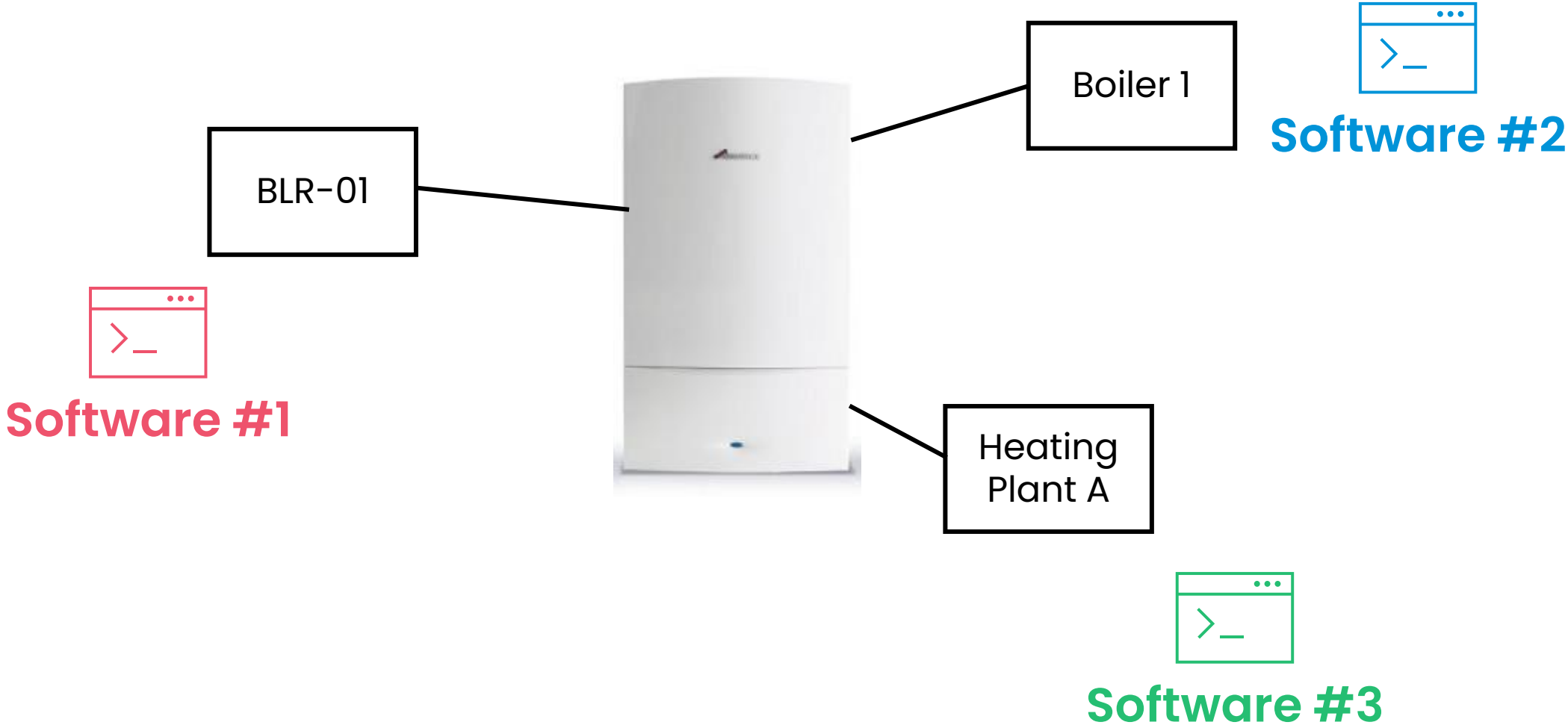
APPLE



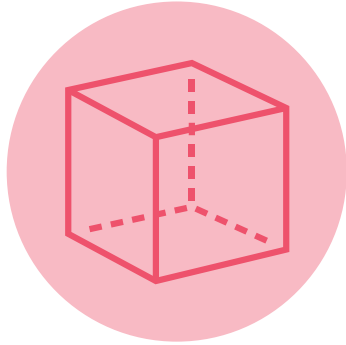
apple



What is BIM?



What is information?



Geometric data is the dimensional representation of an asset, either in 2D or 3D.



Non geometric data is data that reflects the physical and functional characteristics of an asset.

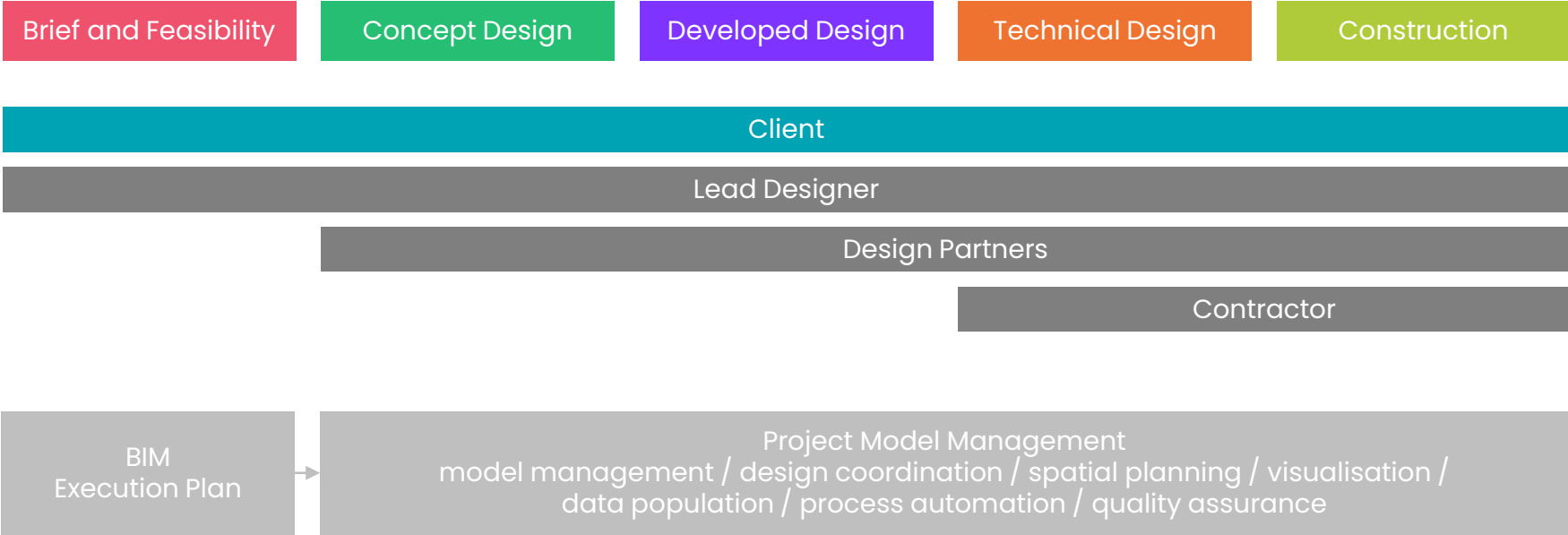


Documentation is a static record of an asset representing a snapshot in time.

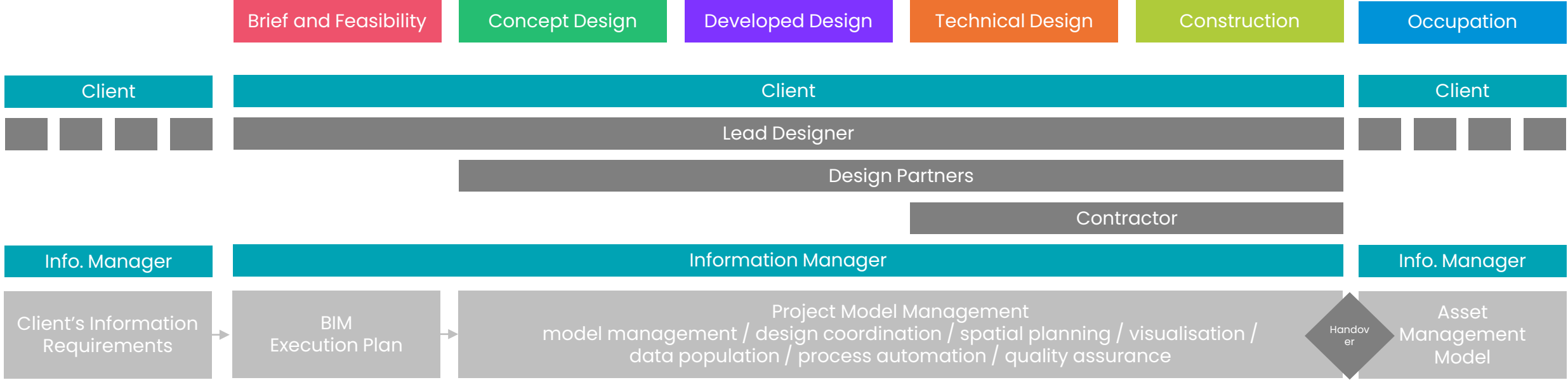
Structured

Unstructured

'Bookending' the IM process



'Bookending' the IM process



What good looks like in practice



Where to begin

Tier 1: Statutory requirement

- Fire and Structural Strategy
- Drawings, plans and as-built information
- Maintenance and Inspection information
- Certifications and reports
- Resident engagement strategies
- Materials and product information



Where to begin

Tier 2: Operational Best Practice

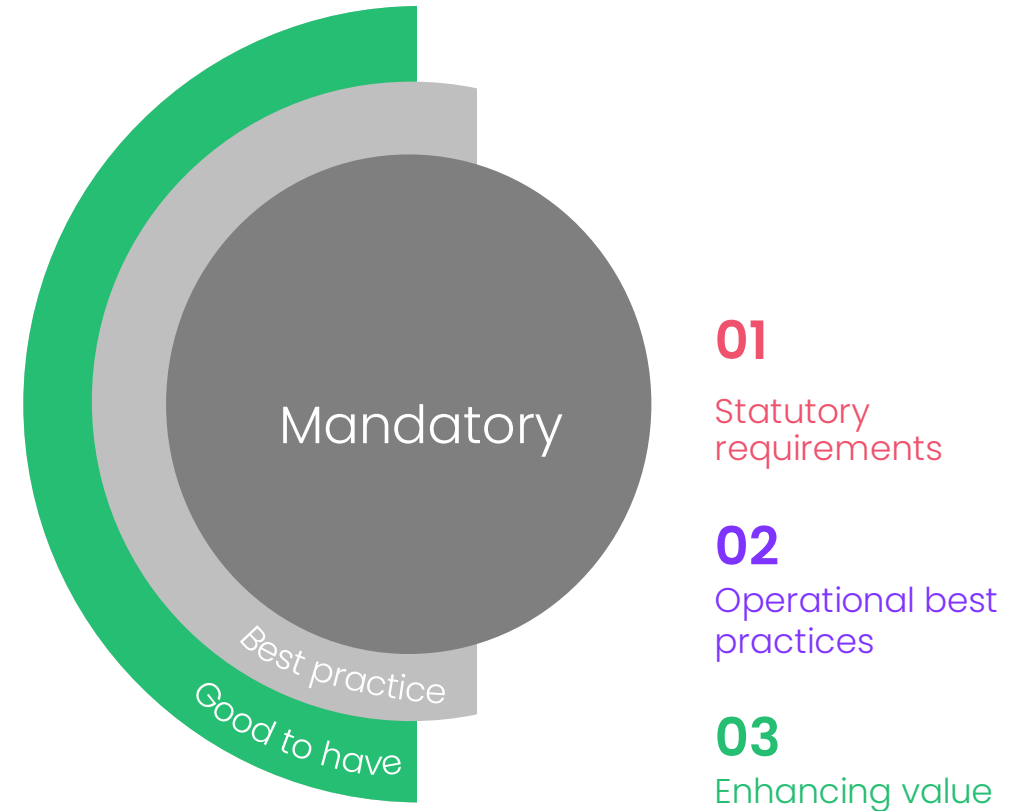
- Use of a CDE instead of a DMS
- Version control and naming standards
- Digital change control logs
- Fire door asset register with QR/barcodes



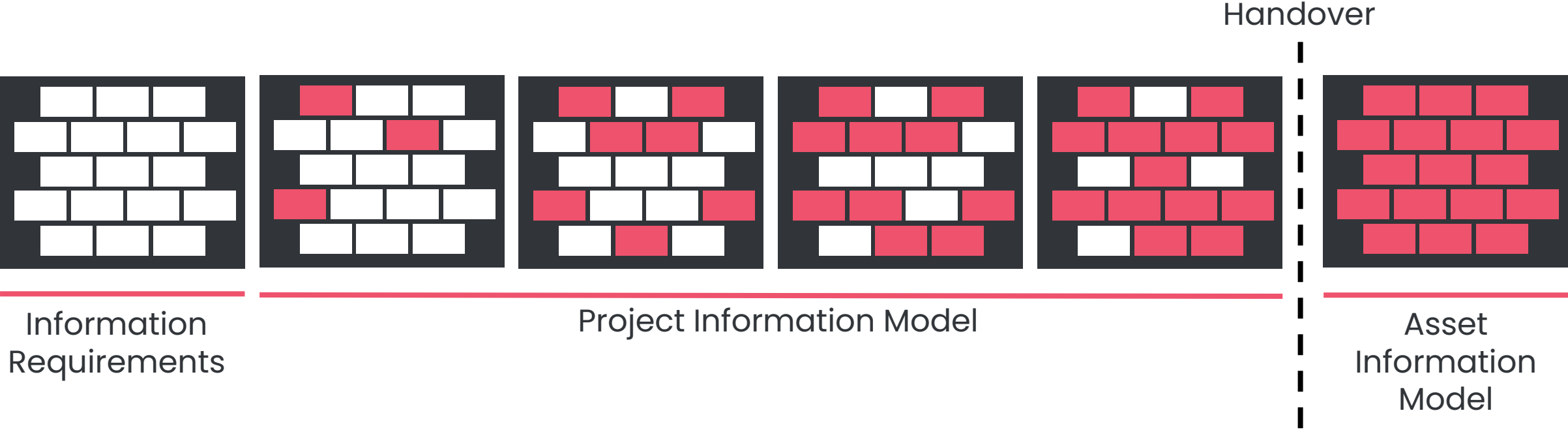
Where to begin

Tier 3: Enhancing value

- BIM Models
- Infographics of evacuation strategy
- Fire strategy validation evidence



1. Define information requirements



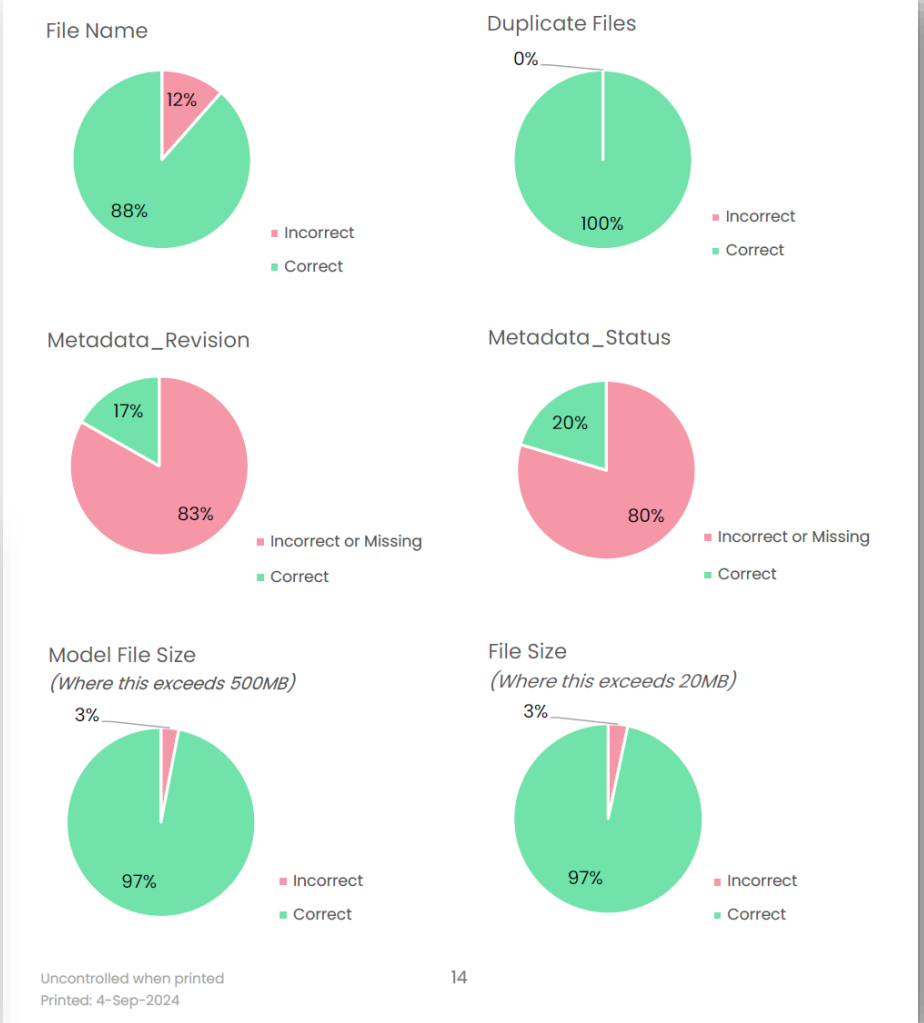
1. Define information requirements

Ref.	Criteria	ARCH		STRUCT		ELECT		MECH		COMMS. / IMIT						
		NSHRECCC-ZGF-CS-ZZ-M3-A-19963	NSHRECCC-ZGF-EC-ZZ-M3-A-19191-R23	NSHRECCC-ZGF-MH-ZI-M3-A-19964-R23	NSHRECCC-RBP-EC-ZZ-M3-S-22001-R23	NSHRECCC-RBP-MH-ZI-M3-S-22000-R23	NSHRECCC-CEL-EC-ZZ-M3-L-43001-R23	NSHRECCC-CEL-MH-ZI-M3-L-43004-R23	NSHRECCC-CEL-EC-ZZ-M3-M-30500-R23	NSHRECCC-CEL-MH-ZI-M3-M-30504-R23	NSHRECCC-HHA-EC-ZZ-M3-T-50004-R23	NSHRECCC-HHA-EC-ZZ-M3-T-50006-R23	NSHRECCC-HHA-EC-ZZ-M3-T-50008-R23	NSHRECCC-HHA-MH-ZI-M3-T-50001-R23	NSHRECCC-HHA-MH-ZI-M3-T-50002-R23	NSHRECCC-HHA-MH-ZI-M3-T-50003-R23
AM.01	Have all required model file formats been provided?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AM.02	Are all native models utilising the agreed project coordinates (Revit PBP)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗
AM.03	Are model elements geometrically representative / appropriately developed to the current project stage?	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
AM.04	Are rooms and/or spaces names & numbers unique?	✗	✓	✗	✗	✗	✓	✓	✗	✗	✓	✓	✓	✗	✗	✗
AM.05	Are all rooms and or spaces assigned the correct classification?	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
AM.06	Has the model been purged?	✗	✗	✓	✓	✓	✗	✓	✓	✗	✗	✗	✗	✗	✗	✗
AM.07	Is the model free from any duplicate elements/objects?	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓	✓
AM.08	Does the model contain an appropriate number of Generic Models?	✓	✓													
AM.09	Does the model contain an appropriate number of warnings?	✗	✗													
AM.10	Are all objects associated to an appropriate workset?	✓	✗													

Table 2. Model Audit Results

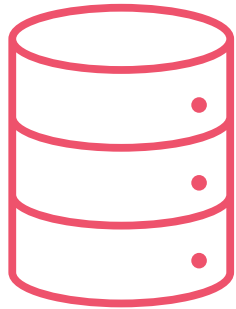
Ref.	Criteria	Total Files	ORIGINATOR									
			BBP	BKL	CEL-E	CEL-M	ED	GWT	HHA	LMD	TNV	ZGF
AC.01	Is the Project Code correct?	137	3	167	96	6	2	70	1	1	14	
AC.02	Is the Originator Code correct?	137	3	167	96	6	2	70	1	1	14	
AC.03	Are the agreed Volume Code(s) correct?	137	3	167	96	6	2	70	1	1	14	
AC.04	Are the agreed Location Code(s) correct?	129	3	164	74	6	2	68	1	1	14	
AC.05	Are the agreed Type Code(s) correct?	129	3	167	96	6	2	70	1	1	14	
AC.06	Is the agreed Role Code correct?	137	3	167	96	6	1	70	1	1	14	
AC.07	Is the agreed Number Code(s) correct?	137	1	167	96	6	0	70	1	1	14	
AC.08	Has the correct delimiter been used within the File Name?	137	3	167	96	6	2	70	1	1	14	
AC.09	Has the File Description been provided? (Character limits may apply)	10	1	10	14	6	1	31	1	1	14	
AC.10	Has the correct Status Code been applied?	10	1	10	14	6	1	31	1	1	14	
AC.11	Has the correct Revision Code been applied?	10	1	10	14	6	1	31	1	1	14	
AC.12	Has the correct Classification been assigned?	10	1	10	14	6	1	31	1	1	14	

Table 3. CDE Audit Results

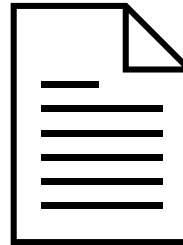
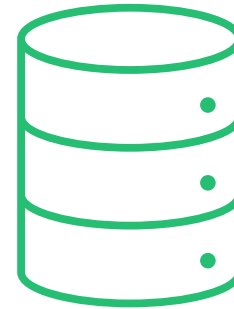


2. Set up your information rules

System 1
(E.g., project CDE)



System 2
(E.g., client CDE)



Revision	P/CXX
Status	SX
Classification	PM_XX_XX_XX

Common standards (e.g., ISO19650) means information can be transferred easily, minimising manipulation and potential data loss.

2. Set up your information rules

BUILDING SAFETY ALLIANCE

Who we are | What the BSA does for you | Driving competence | Org: Capability Standard | Competence guidelines | **The Golden Thread** | News | Contact

The Building Safety Alliance has worked with many experts and stakeholders to develop practical and proportionate methods to collate and assure the validity of golden thread and safety case information.

Before writing a safety case report and undertaking a Building Risk Assessment (as required by the Building Safety Act 2022), (principal) accountable persons (P)APs and those that support them will need to assure themselves that they have all of the appropriate and validated information necessary.

The Building Safety Alliance guidance has been published in three parts:

1. Information management & the golden thread – The BSA Prescribed information and documents table (Excel Spreadsheet, including The List)
2. Information management & the golden thread – How to use the 'Prescribed information and documents table'. Practical guidance on collating, keeping and assuring golden thread information
3. Information management & the golden thread – Supporting Information to assist in the use of the 'Prescribed information and documents table' – A Selection of key regulatory information requirements.

The 'How to use the 'Prescribed information and

To receive a free copy of the document and future workshop invitations, please fill in the form and we will be in touch by email.

**information required*

Name *

Company *

Country *

Position *

Email Address *

Please tick the box that applies most to you/your organisation: *

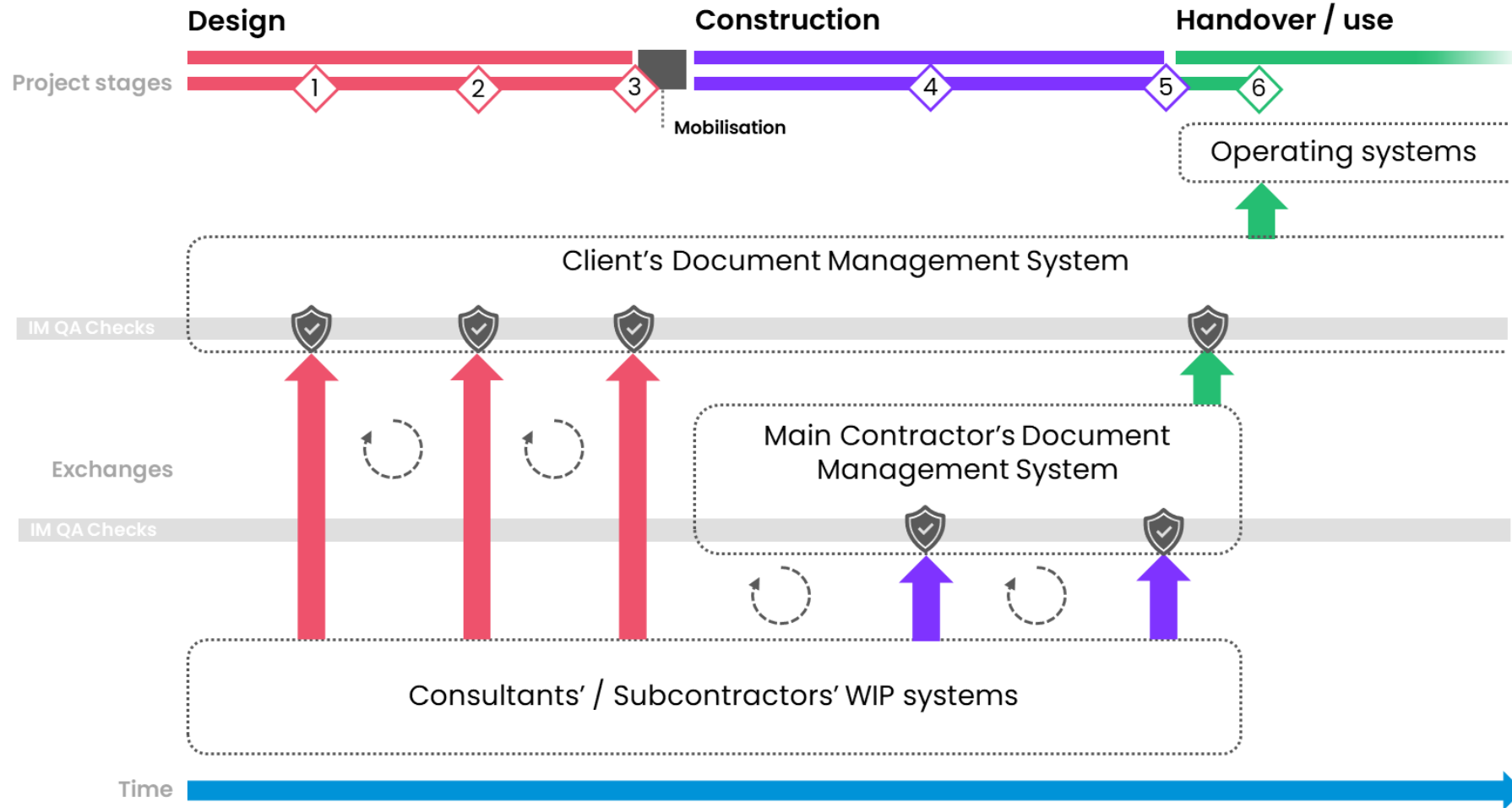
Property manager

Guidance to assist the collation and assurance of information required for the golden thread and the safety case

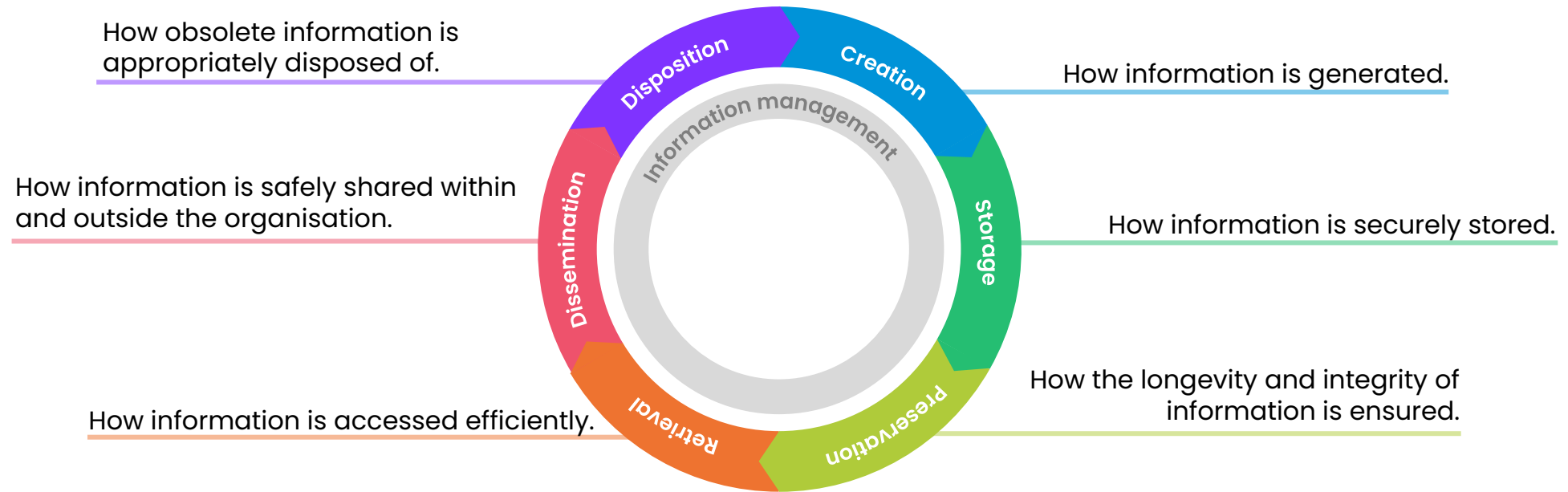
The List and Assurance Development Existing Property

The List and Assurance Development Construction

3. Set up your exchange protocols



4. Understand the information lifecycle



The Litmus test of the golden thread

1.

Accurate and
Trusted

2.

Creates
Security for
Residents

3.

Enacts Culture
Change

4.

Constitutes a
Single Source of
Truth

5.

Secure

6.

Accountable

7.

Understandable
/ Consistent

8.

Accessible

9.

Durable and
Shareable

10.

Relevant /
Proportionate

Thank you.

Come and say hi!



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MelanieR@okana.global

