

# FIS

FINISHES & INTERIORS SECTOR

## The Golden Thread – Information Management in construction

Sponsored by



## **Welcome to the Digital Revolution**

Mark Norton, Digital Construction Director, ISG

## **Using technology to support compliance, measure progress and avoid waste**

Kate Hawkins, Pre-Contract Projects Director, Stanmore

## **Lining up a Golden Thread that works for everyone**

Dr Stephen Hamil, Innovation Director, NBS

## **How do we all contribute to a whole building approach?**

Bola Abisogun OBE, Digital Director, BIM Academy

## **Developing your Digital Strategy**

Iain McIlwee, Chief Executive, Finishes and Interiors Sector



## **Mark Norton**

Digital Construction Director, ISG

Welcome to the digital  
revolution

# Welcome to the digital revolution

**Mark Norton**  
**Digital Construction Director**





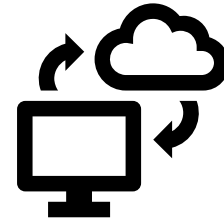
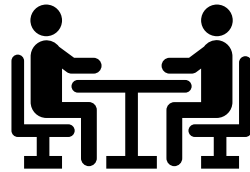
Does this appear usual?





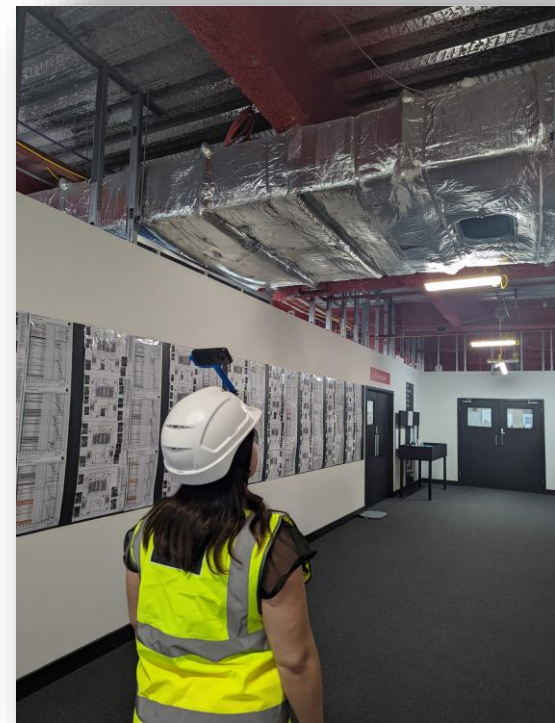
International  
Organization for  
Standardization

- **People**
- **Process**
- **Technology**





# Technology, Is this what we think of?



Category	Progress	Quantity Installed
Top Track	98%	1,758 / 1,800 LF INSTALLED
Framing	98%	17,577 / 18,002 SF INSTALLED
Drywall - Hung	97%	30,116 / 31,129 SF INSTALLED



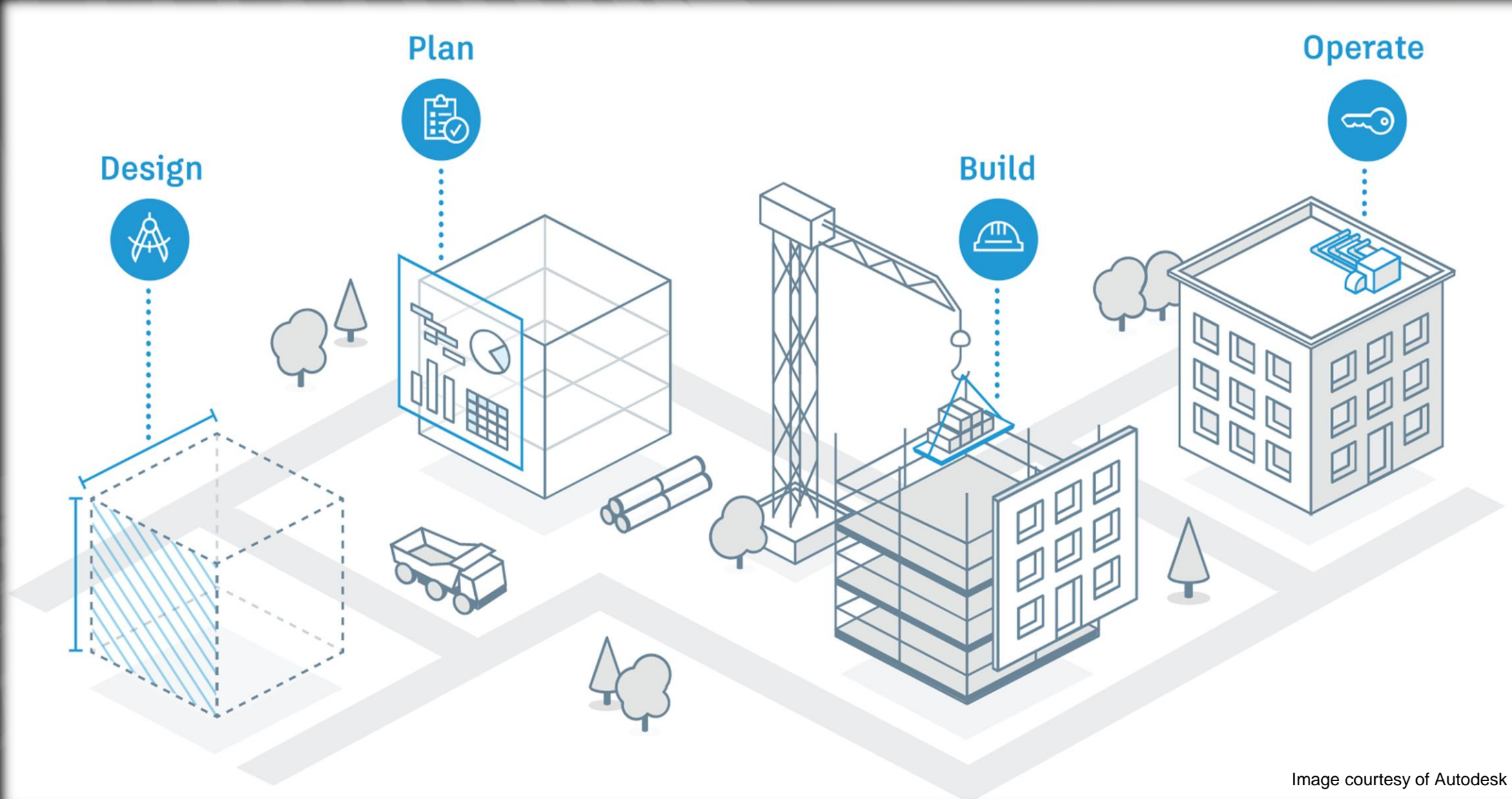
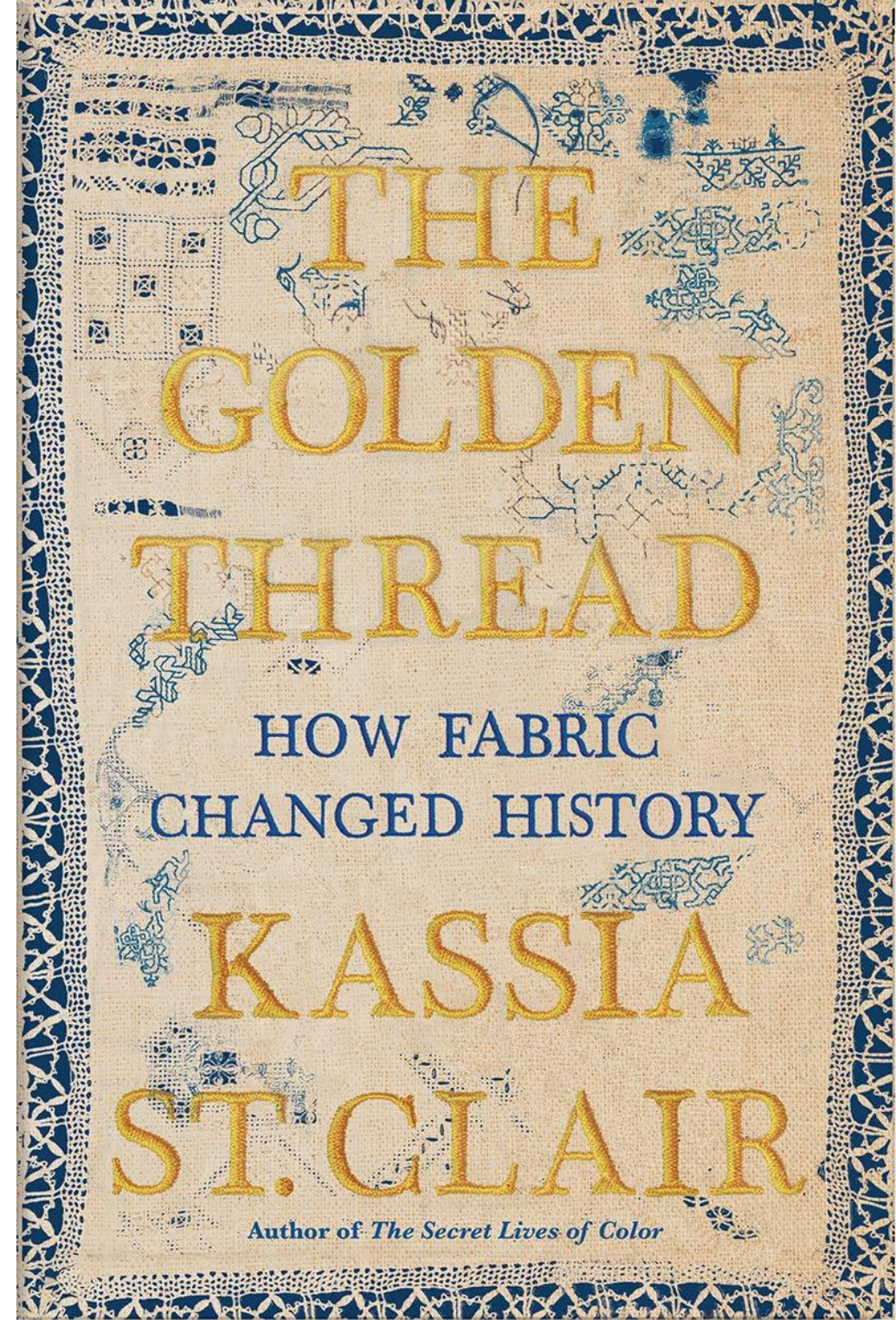
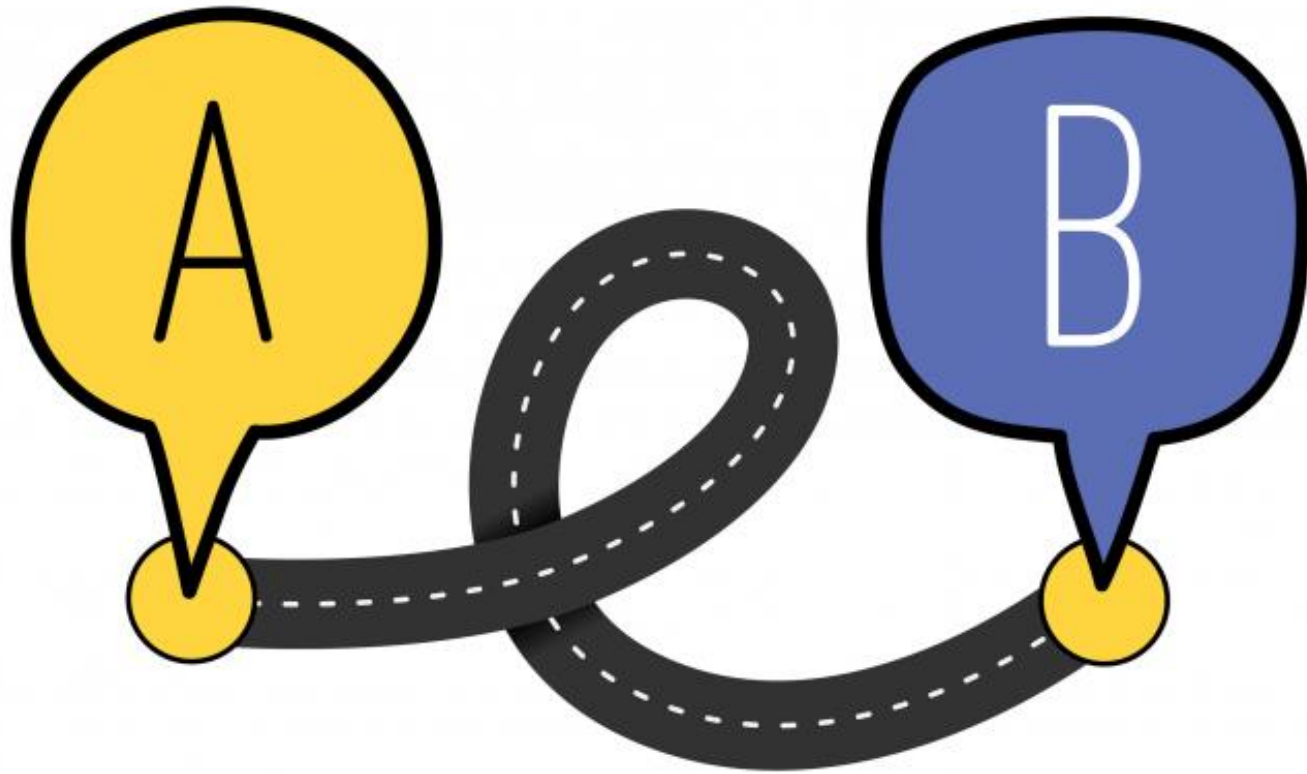


Image courtesy of Autodesk

**Process**



# That Golden Thread (of information)











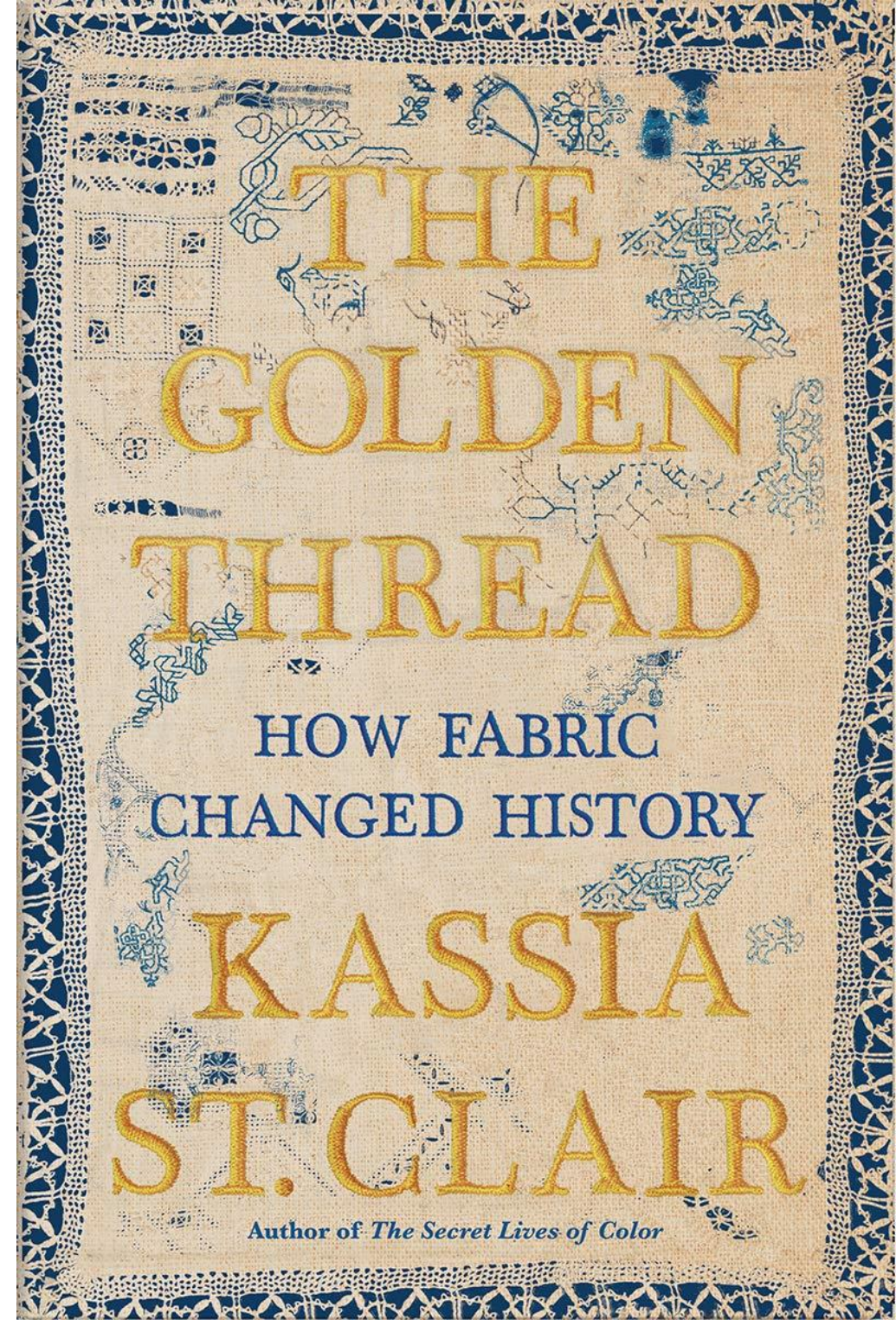








**Its all about the journey**







**Dr Stephen Hamil**  
Innovation Director, NBS

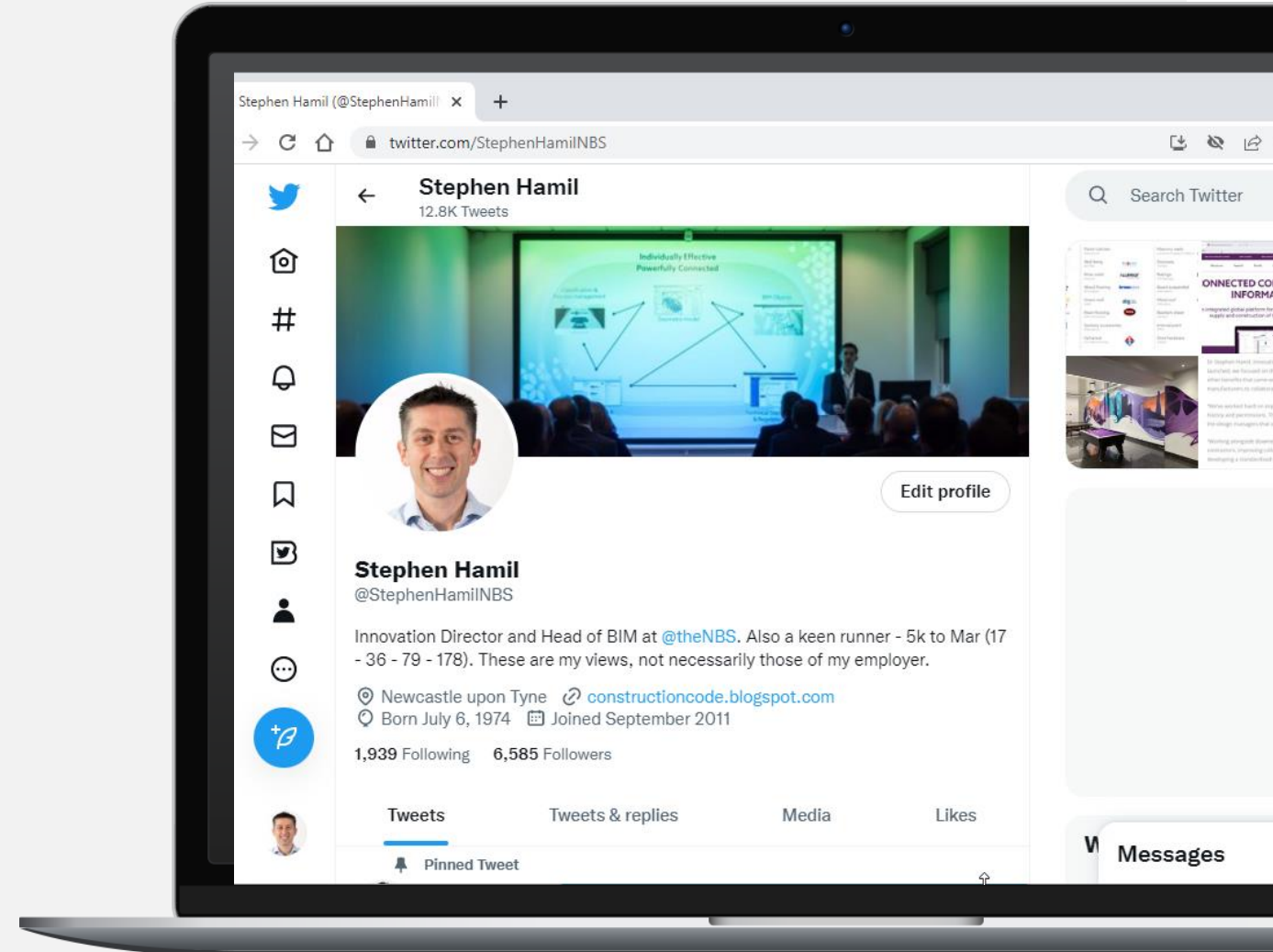
Lining up a Golden Thread that  
works for everyone

# Specification and the golden thread of information

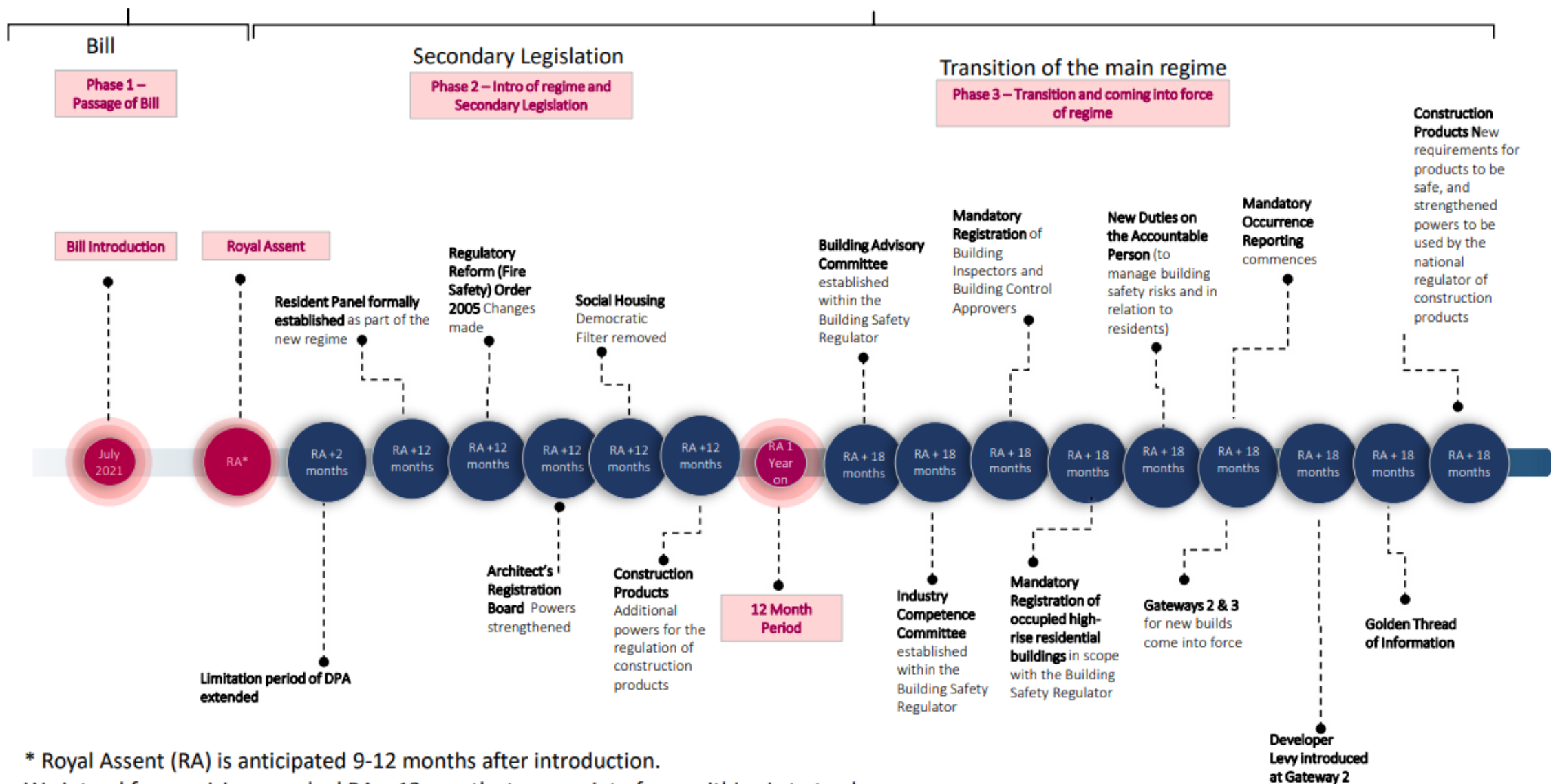
Connected construction information

# Dr Stephen Hamil

Innovation Director at NBS







\* Royal Assent (RA) is anticipated 9-12 months after introduction.  
 We intend for provisions marked RA + 12 months to come into force within six to twelve months of Royal Assent.  
 We intend for provisions marked RA + 18 months to come into force within twelve to eighteen months of Royal Assent.

## Building Safety Bill & Transition



Ss\_75\_70\_28\_29

## Fire detection and alarm system Type A003

### System outline

Description: Automatic fire detection system for all non-domestic facilities with visual alarms and sounders

#### System performance

In accordance with BS 5839-1

#### Products

Provide third-party certification by an approved assessor

#### Fire alarm sounders

Electronic sounders to BS EN 54-3, 100dBA at 1m

#### Smoke detectors

Optical and ionization detectors to BS EN 54-7

#### Execution

Installing sounders:  
Install in accordance with BS 5839-1.

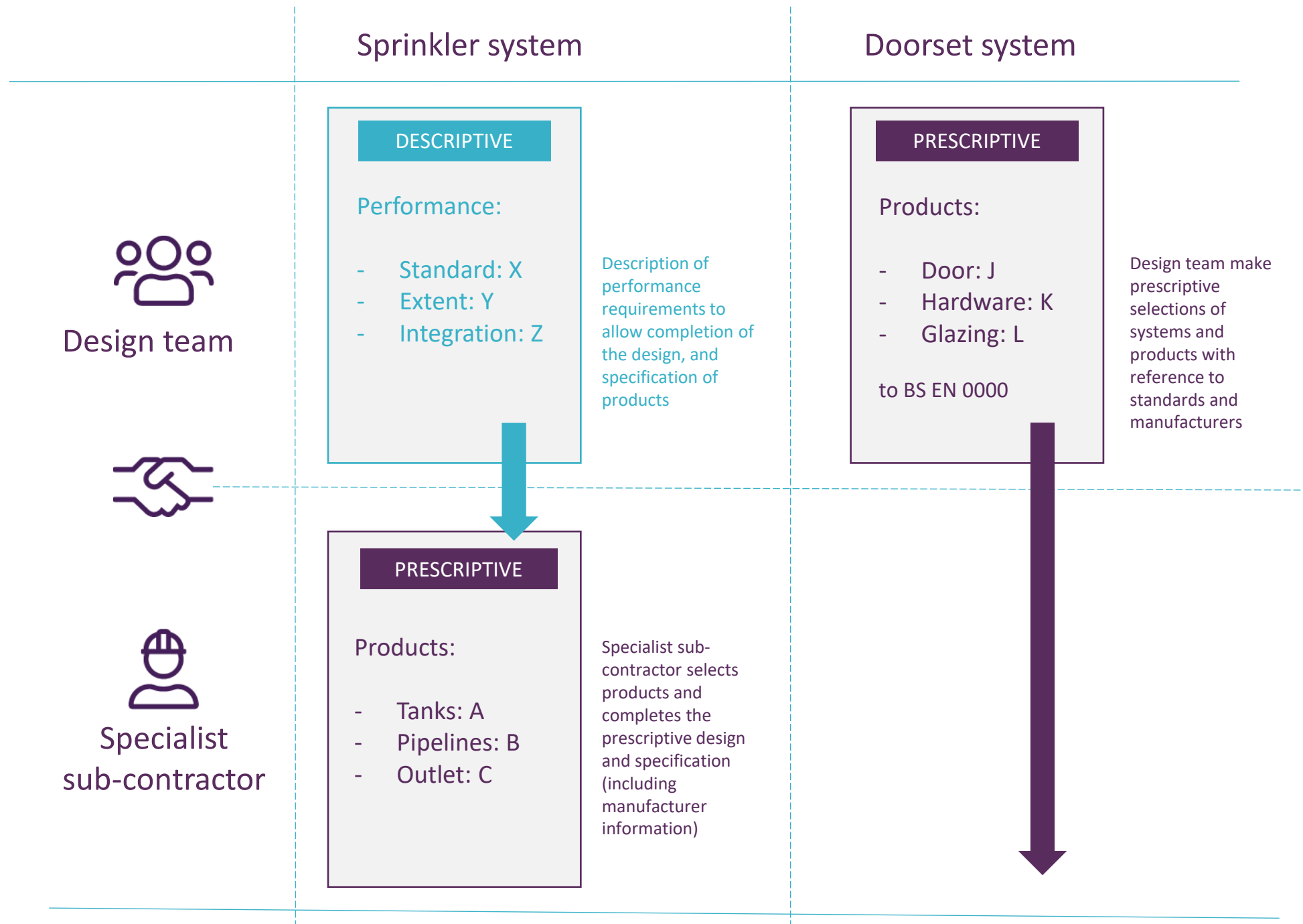
#### System completion

Documentation, ID and testing:  
Label devices and verify operation.  
Results schedule: Submit.

#### System maintenance

Emergency battery testing:  
Every 6 months.

# Specification structure



# CCPI

## CODE FOR CONSTRUCTION PRODUCT INFORMATION

### FOREWORD

*Manufacturers of Construction Products who choose to sign up to the “Code for Construction Product Information”, are agreeing to abide by the clauses in this code to give confidence to those in the supply chain using their **Product Information**, that it is clear, accurate, up-to-date, accessible, and unambiguous. The **Product Information** can therefore be relied upon when making decisions about using those **Construction Products** at any stage of design, specification, installation, use, maintenance and disposal.*

#### CONSTRUCTION PRODUCT:

### INFORMATION CREATION

- 1 Have in place a documented sign-off process for creating ‘Product Information’.
- 2 Have in place a formal version control process for all ‘Product Information’.
- 3 Do not use mis-leading or ambiguous wording, phrasing or imagery and embrace the use of plain English to ensure accurate representation of ‘Product Information’ and performance claims.

[www.](#)

#### CONSTRUCTION PRODUCT:

### ASSOCIATED INFORMATION

- 8 Publish on your website and make easily accessible, clear information on handling, installation, operation, maintenance and disposal of ‘Construction Products’.
- 9 For any guarantees/warranties used in ‘Product Information’, your website must state what is: covered, excluded and required to comply with its terms. The guarantee/warranty should be transparent and in a format recognised by the relevant sector of industry.



#### CONSTRUCTION PRODUCT:

### CORE INFORMATION

- 4 Provide valid and demonstrable documentation where claiming compliance to, or achievement of, any Certification, Classification or Industry Standard.
- 5 Provide specific documentation when making any product performance claims outside of Certification, Classification or Industry Standard tests; which must be made available on request and shared in an appropriate timeframe.
- 6 Make available on your website the descriptive and physical characteristics of the ‘Construction Product’
- 7 Ensure all changes affecting ‘Product Information’ resulting from changes to the ‘Construction Product’ are identified and reflecting in revised ‘Product Information’.



#### CONSTRUCTION PRODUCT:

### SUPPORT AND COMPETENCE

- 10 Ensure technical helpline contact details (telephone and/or email) are visible on your website.
- 11 Have in place a robust training programme (for new and existing personnel) to ensure that anyone conveying ‘Product Information’ is competent to the level of knowledge required for their role.

**Pr\_25\_80\_80\_79 Sleeved mineral wool cavity barriers** Discard Save

1 Description: \_\_\_\_\_

2 General requirements: Insulation products generally

3 Manufacturer: \_\_\_\_\_

4 Cavity barriers

4.1 Sleeves: \_\_\_\_\_

4.2 Attachment: \_\_\_\_\_

5 Size: \_\_\_\_\_

6 Residual cavity width: \_\_\_\_\_

7 Fire performance: \_\_\_\_\_

8 Sound insulation rating: \_\_\_\_\_

[More products](#)

**+ Add to spec** **Siderise EW - Cavity Barriers and Fire Stops for Masonry External Walls** Siderise Group

Last published: 25/10/2022. Last verified: 25/10/2022. [?](#)

[Contact manufacturer](#)

SIDERISE EW systems comprise a low resin content stone wool insulation core, which is pre-compressed internally to form a resilient strip. The material is faced on two sides with a reinforced aluminium foil which is an effective smoke barrier.

**Features and benefits:**

- Class A1 to EN 13501-1.

[Read more](#)

**Application**

**The clause** 2 variants

**Third party certificates**



## **Kate Hawkins**

**Pre-Contract Projects Director,  
Stanmore**

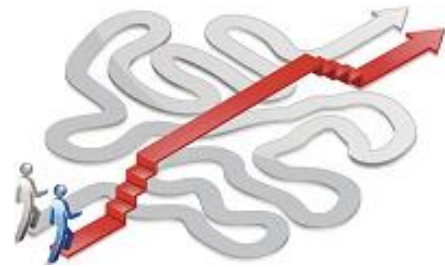
Using technology to support  
compliance, measure progress  
and avoid waste





**STANMORE**  
CONTRACTORS

**Using technology to support compliance,  
measure progress and avoid waste**



## *Stanmore Tech Hub*



## *Stanmore Quality Recording System*

(SQRS)

# Stanmore Quality Recording System



Project Code: GUI001-SF

Project Name: **Sutton Wharf East**

Project Address: **Grand Regent Tower, Suttons Wharf East, Palmers Road, Mile End**

Site Post Code: **E2 0FQ**

Main Contractor: **Guinness Homes**

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Cloud Folders & Published Docs

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Drawings

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Tech Submittals

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Project Code: GUI001-SF

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Site Post Code: **E2 0FQ**

Main Contractor: **Guinness Homes**



Cloud Folders & Published Docs

Drawings

Tech Submittals

Quality Docs *(for Review and Update!)*

QA Submittals *- Ready to try*

RFI Submittals *- Ready to try*

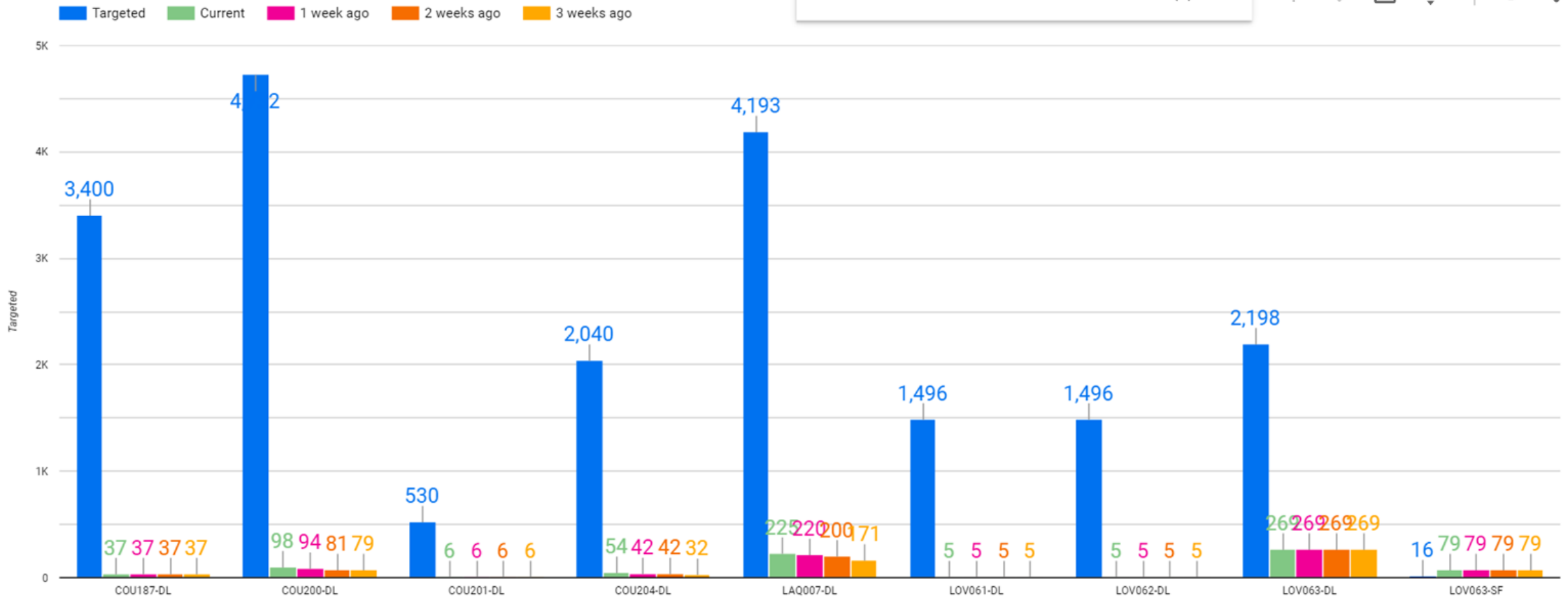
NCR Submittals *- Ready to try*

# Reporting / Monitoring



## Stanmore Quality Recording System QA Submissions Monitoring

Pick a Contracts Director: Darre... (1) ▾





FACADE QA RECORD SHEET

Form Ref: SQRSv3\_MSF DL01\_v1

Issue: 2      QA Action: **Submission Reviewed**      Form: **Open**

Check Description: **RCM Y-Wall Board onto Light Steel Frame**

1.1	Previous Issue (if any)	<a href="#">View Previous Issue PDF Record</a>
1.2	Checklist Link (if any)	<a href="#">MSF_105/004 RCM Y-Wall Board onto Light Steel Frame</a>
1.3	Project Code	GUI001-SF
1.4	Client Name	Guinness Homes
1.5	Project Name	Sutton Wharf East
1.6	Project Address	Grand Regent Tower Suttons Wharf East Palmers Road Mile End E2 0FQ
1.7	Block Reference	C
1.8	Floor Reference	L05
1.9	Elevation/Plot Reference	South
1.10	Plot Unique Reference	C/L05/South
1.11	Location References	Brickwork, Valcan Vitradual, Rockpanel A2 FS-Xtra
1.12	System or Drg References	EL-004, PL-001, PL-002, PL-003, PL-004, DE-001, DE-002, DE-003, DE-004

2.1 QA Evidence Files & Comments

Prelim Evidence Media Files & Comments	Review Evidence Media Files & Comments
 <p><a href="#">First fix complete</a></p>	 <p><a href="#">Installation quality insufficient</a></p>
Final Evidence Media Files & Comments	Supporting Information (if any)

**Notes for Client:** In case the completed works are not acceptable for any reason, Stanmore must be notified within 48hrs after issuing this Sign-off sheet. If no communication received during this period, Stanmore will deem it as the acceptance of all completed works indicated on this Sign-off Sheet



## Example QA Report

- Reports auto named
- Email notification with pdf attachment
- Traceability
- QR code on pdf to edit open status forms



# Project Data

## Images of the Adhesion Test

Sika Hyflex 250 Concrete Grey Sika Aktivator 205 Primed Face Powder Coated Aluminium Profile sample.



Sika Hyflex 250 Concrete Grey Un-primed Face Powder Coated Aluminium Profile sample.



## Summary

**Test B** - Satisfactory adhesion was achieved to the face of the Powder Coated Aluminium Profile sample when tested in conjunction with Sika Hyflex 250 Concrete Grey primed with Sika Aktivator 205. Satisfactory adhesion was also seen on the un-primed face of the Powder Coated Aluminium Profile sample with Sika Hyflex 250 Concrete Grey.

**Test C** - Satisfactory adhesion was achieved to the face of the Powder Coated Aluminium Profile sample when tested in conjunction with Sika Hyflex 250 Concrete Grey primed with Sika Aktivator 205. Satisfactory adhesion was also seen on the un-primed face of the Powder Coated Aluminium Profile sample with Sika Hyflex 250 Concrete Grey.





# Project Data



<b>ALUMINIUM CLADDING - 7 Types</b>					
TYPE NUMBER	TYPE REFERENCE	FIXING TYPE	DESCRIPTION	APPLICATION	APPLICATION DESCRIPTION
1	F2	EJOT JT3 3 6.3 X 50	6.3MM DIAMETER STAINLESS STEEL SELF DRILLING SCREW – FIXES INTO ALUM/STEEL SECTIONS OF 1.2-3MM THICK	ALUMINIUM CLADDING	ALUMINIUM SOFFIT SUPPORT TO 3MM MAX ALUMINIUM / STEEL
2	F3	EJOT JT6 6 5.5 X 35	6.3MM DIAMETER STAINLESS STEEL SELF DRILLING SCREW WITH 16MM EPDM WASHER – FIXES INTO ALUM/STEEL SECTIONS OF 1.2-6MM THICK WITH CLAMPING THICKNESS OF 1.2-8MM	ALUMINIUM CLADDING	ALUMINIUM PROFILE TO 4MM THICK ALUMINIUM / STEEL
3	F4	EJOT JT3 FR 2H 6.3 x 25 S12	6.3 MM DIAMETER STAINLESS STEEL SELF DRILLING SCREW – WITH 12MM EPDM WASHER, 19MM LENGTH	ALUMINIUM CLADDING	COPING PROFILE TO TOPHAT SUPPORT BRACKET
3	F5	MAINLINE 5.0 X 12 X 14 – 6.0 – 8.0 (ALMG 5)	5MM DOME HEAD ALUMINIUM/STAINLESS STEEL RIVET COLOUR MATCHED TO PPC PROFILE WITH A GRIP	ALUMINIUM CLADDING	ALUMINIUM SOFFIT PANEL TO 3MM ALUMINIUM SUPPORT FRAME
3	F6	MAINLINE 5.0 X 12 X 14 – 6.0 – 8.0 (ALMG 5)	5MM DOME HEAD ALUMINIUM/STAINLESS STEEL RIVET COLOUR MATCHED TO PPC PROFILE WITH A GRIP	ALUMINIUM CLADDING	ALUMINIUM FLASHING TO FLASHING SUPPORT BRACKET
4	F7	MAINLINE SWLP/SD/S 5.5 X 35	LOW PROFILE STAINLESS STEEL 5.5MM DIAMETER TEK SCREW AS PER GENIUS PRIME TESTING DOCUMENTATION	ALUMINIUM CLADDING	15MM ALUMINIUM RAINSCREEN CLADDING PANEL SUPPORT CLIP TO 2MM HELPING HAND VERTICAL RAIL
4	F8	MAINLINE SWLP/SD/S 5.5 X 35	LOW PROFILE STAINLESS STEEL 5.5MM DIAMETER TEK SCREW AS PER GENIUS PRIME TESTING DOCUMENTATION	ALUMINIUM CLADDING	ALUMINIUM RAINSCREEN CLADDING PANEL HEAD FIXING INTO VERTICAL L/T RAIL
4	F9	MAINLINE SWLP/SD/S 5.5 X 35 S12	5.5MM LOW PROFILE DOME HEAD STAINLESS STEEL SELF DRILLING SCREW (WITH 12MM SEALING WASHER) COLOUR MATCHED TO FLASHING	ALUMINIUM CLADDING	ALUMINIUM FLASHING TO WINDOW FRAME
5	F11	EJOT JT3 6 5.5 X 50 S16	5.5MM DIAMETER STAINLESS STEEL SELF DRILLING SCREW WITH 16MM EPDM WASHER, 50MM LENGTH FOR 31MM CLAMPING	ALUMINIUM CLADDING	COPING SUPPORT TOPHAT BRACKET TO 4MM ALUMINIUM SUPPORT ANGLE
6	F69	NVELOPE 04/SDA5/5.5X22	5.5MM DIAMETER STAINLESS STEEL SELF DRILLING SCREW SPECIFICALLY SPECIFIED	ALUMINIUM CLADDING	NVELOPE HELPING HAND SYSTEM VERTICAL RAIL FIXING TO VERTICAL ALUMINIUM RAIL
7	F70	EJOT JT4 FR 4 5.5X19	STAINLESS STEEL SELF DRILLING SCREW	ALUMINIUM CLADDING	ALUMINIUM SOFFIT FLASHING @ JUILET BALCONY
8	F71	MAINLINE SWSH/SWLP/A4S 5.5 x 65 x 14-A4	5.5MM DIAMETER STAINLESS STEEL LOW PROFILE 65MM LENGH FIXINGS TO CLAMP SOFFIT C CHANNEL @ JUILET	ALUMINIUM CLADDING	ALUMINIUM SOFFIT FLASHING @ JUILET BALCONY



**STANMORE**  
CONTRACTORS

Thank you for your attention



## **Bola Abisogun OBE**

Digital Director, BIM Academy

How do we all contribute to a whole building approach?





ba





## **Bola Abisogun OBE**

Digital Director, BIM Academy

Chartered Surveyor [PQS]

*Golden Thread & Smarter Assets; how do we deliver and sustain them?*

*where 'As-Built' becomes 'As-Managed'*

An architectural rendering of a modern, multi-story building with a curved facade. The building features a prominent curved section with a grid of windows and a light-colored, textured facade. The ground floor has large glass windows and columns. In the foreground, there is a paved plaza with several people walking and a person with a bicycle. The sky is overcast with grey clouds. A large white text overlay is centered on the image, reading "Golden Thread | ba".

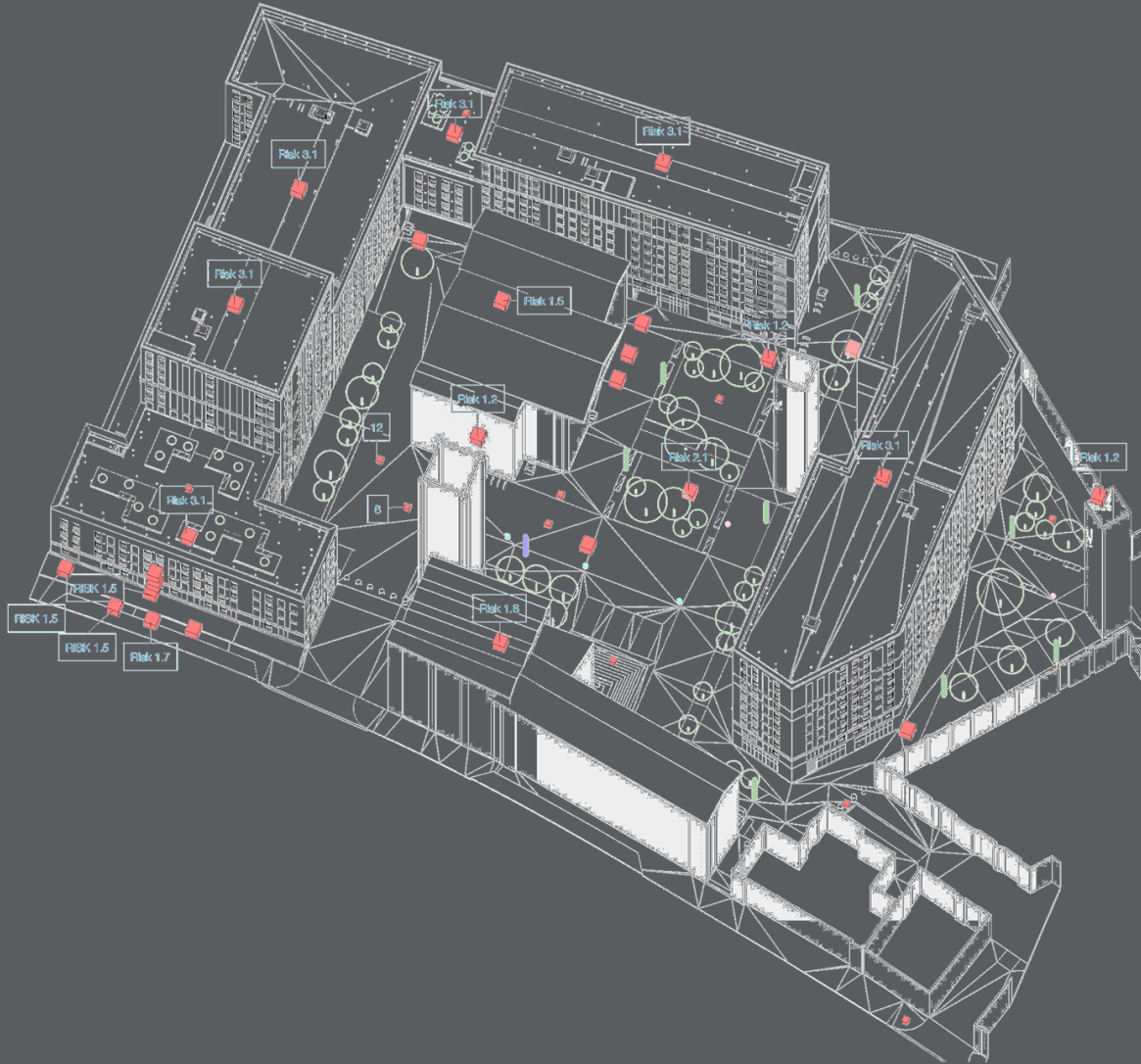
Golden Thread

ba



# Introduction

## Golden Thread

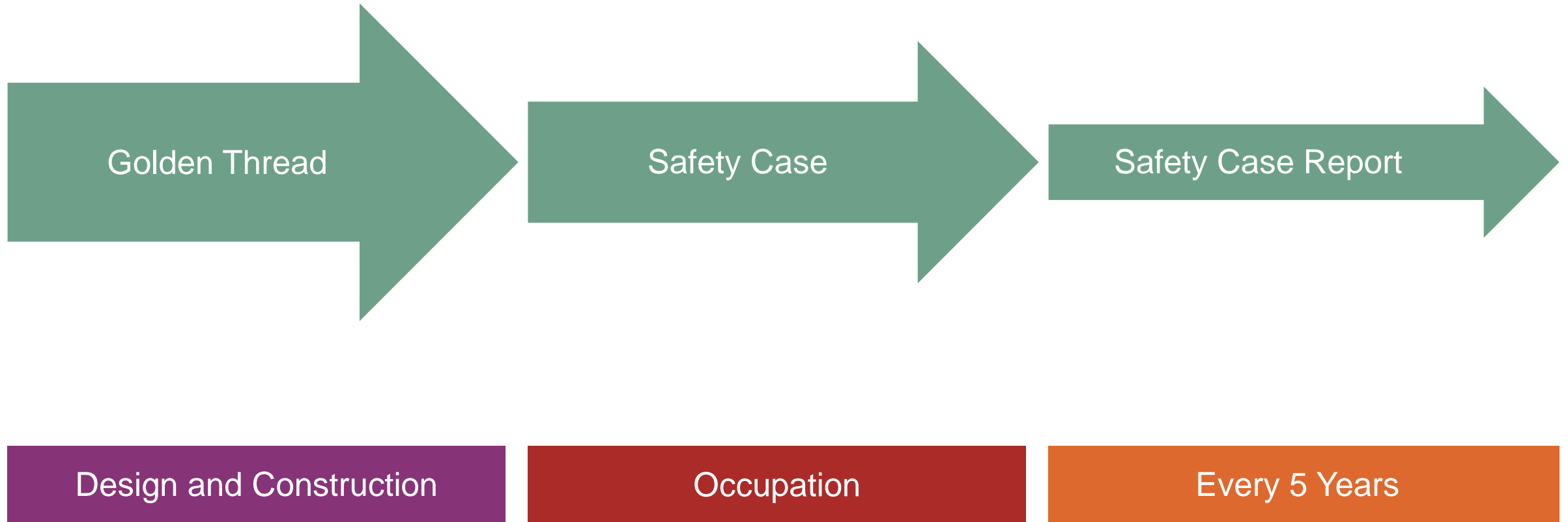


“The Golden Thread is the information that allows you to understand a building and the steps needed to keep both the building and people safe, now and in the future.”

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.

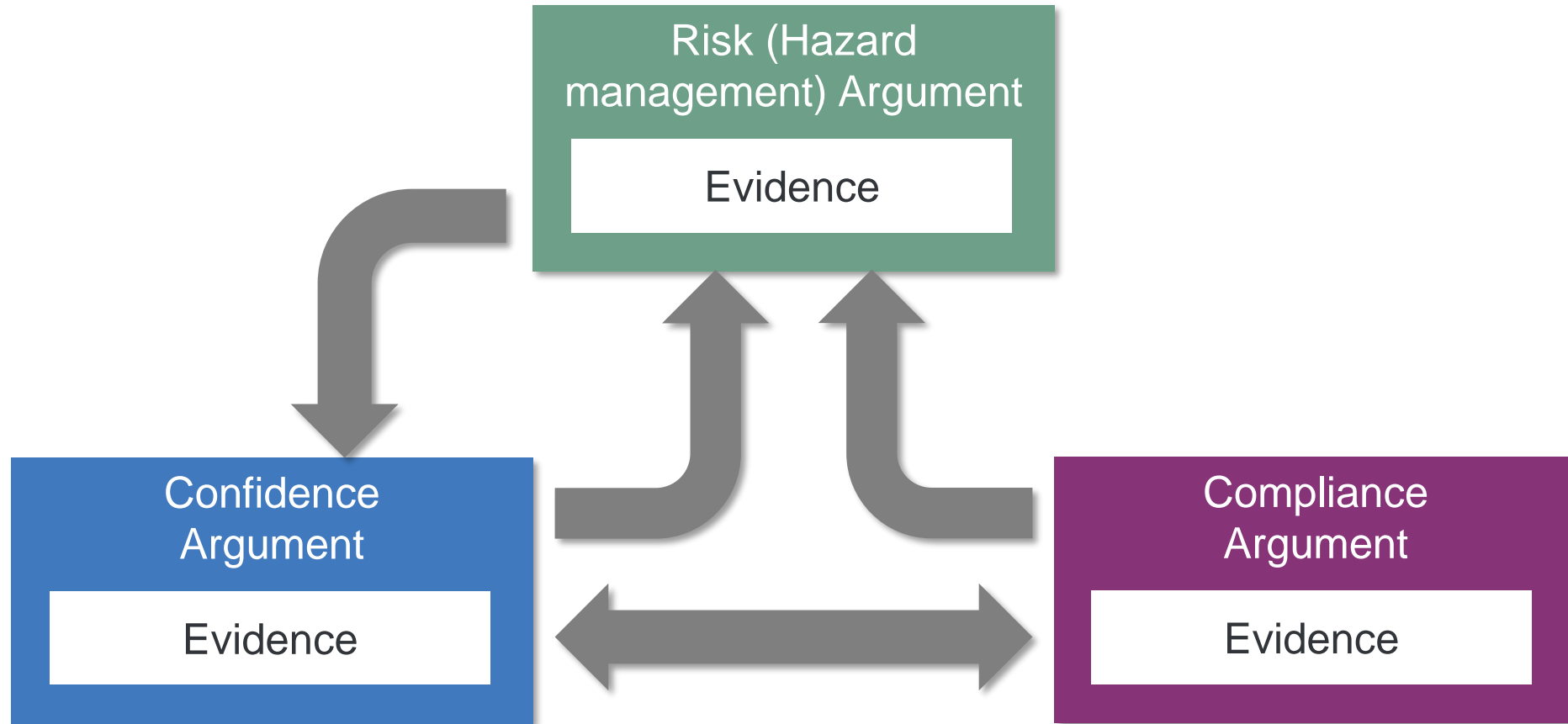
# Safety Case

Golden Thread



# A Structured Argument

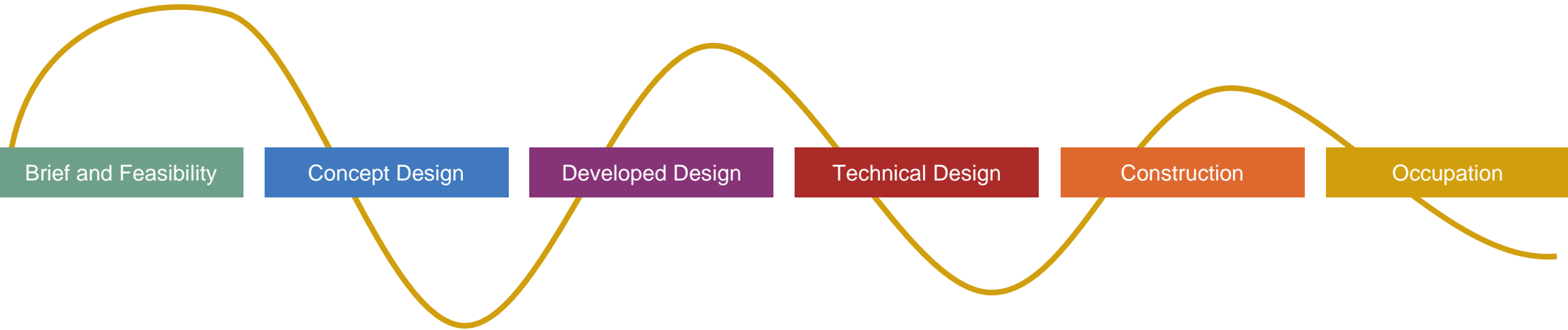
Golden Thread





# A Single Source of Truth

Golden Thread



# Information Strategy and Requirements

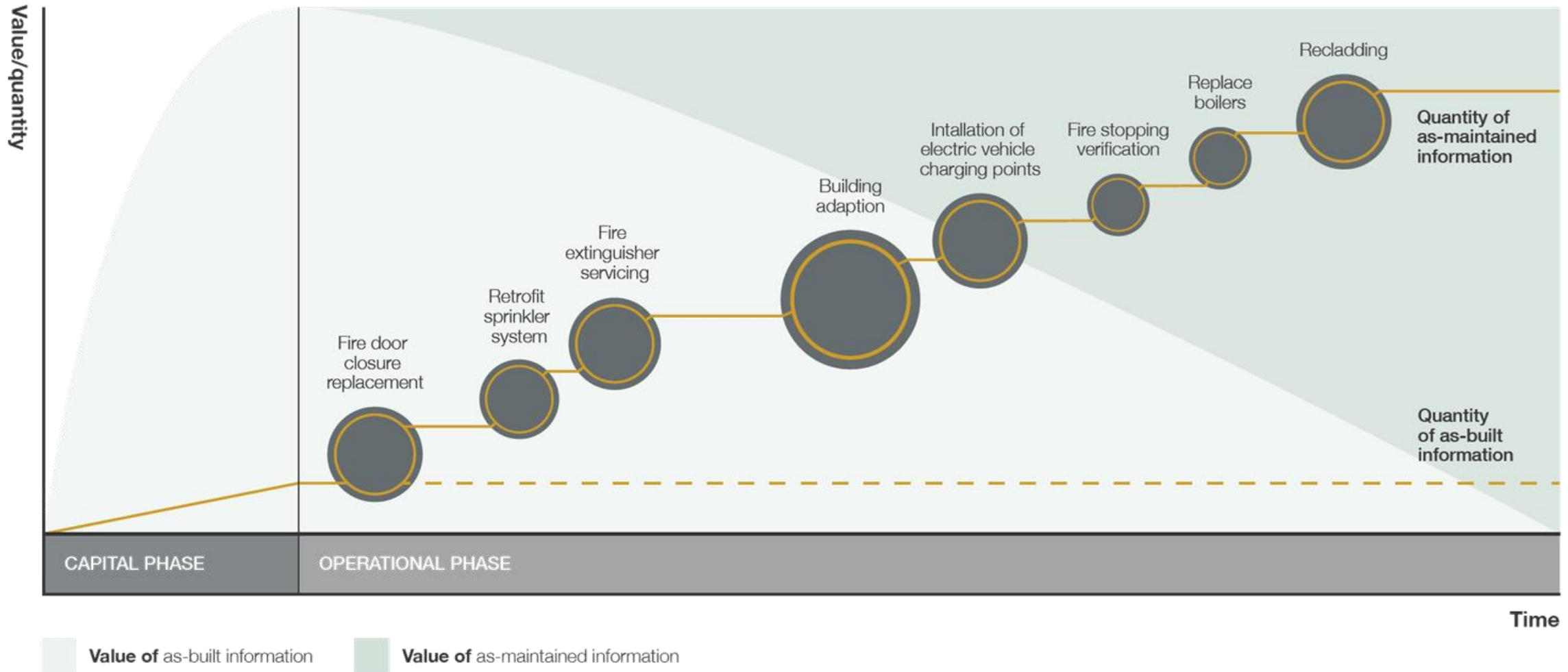
Golden Thread





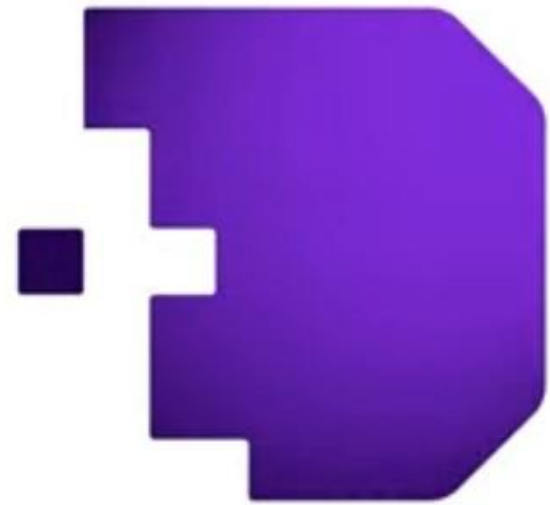
# Information Migration

Golden Thread



# Digital Skills Requirement

Golden Thread



# Digital Twin Skills Academy





Q&A



## **Iain McIlwee**

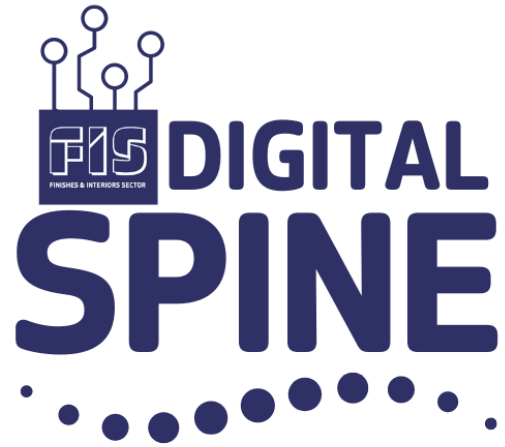
Chief Executive, Finishes and Interiors Sector

Developing your Digital Strategy



# It's about information management...

**PRODUCT**  
**PROCESS**  
**PEOPLE**



I  
We  
They

## Product Data Sheet

Performance parameters determined by test

Performance parameters determined by assessment

Declaration of Performance (data)

Constitution/details of parts where not proprietary

LCA/EPD

Materials Health

REACH/Chemical

## Product Passport

Installation record (including who and any detailing issues)

Service/maintenance record (Facilities Management)

Details of location and category of use

## Asset Management System

Integration with wider building information

Digital twin data

Pre-populated strip-out audit for refurbishment

Alignment with any Building Passport



# **FIS**

**FINISHES & INTERIORS SECTOR**

## **Panel Debate**

# FIS

FINISHES & INTERIORS SECTOR

## We'll be right back

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