

SKANSKA



STRABAG

Working in  
partnership with

HS2

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# Implementing Process Management in a joint venture

A strategic approach to Business Process Management (BPM)

# The HS2 London tunnels route



# The HS2 London tunnels

## Delivering the HS2 London tunnels programme

- SKANSKA Costain STRABAG Joint Venture (SCS JV) is part of an incredible journey, creating the London tunnels section of a new high-speed railway (HS2)
- SCS JV is constructing 13 miles (20 km circa) of twin-bore tunnels on the HS2 route to its southern terminus at Euston. As 95% of this journey will be in tunnel, we will run six Tunnel Boring Machines (TBMs), of which five will operate simultaneously.
- SCS JV is operating from 23 work sites in a 13 miles (20km circa) route, employing 2500+ people and working with about 300 contractors
- The SCS JV logistics hub operations is removing excavated earth through dedicated tunnels and conveyors and removed off site by trains. Using 8 trains a day it removes 20 lorries from the road, saving 40% in CO2 emissions.

Northolt tunnel west

Northolt tunnel east

Euston tunnel

OOC station  
Atlas Road logistics tunnel

excavated tunnels

# Your speaker



## **Angelo Vinci**

Service Improvement Manager –  
at SKANSKA Costain STRABAG  
Joint Venture – SCS JV

- 10+ years experience in Business Process Management and Improvement
- 15+ years experience in the service industry, incl. Probation, Home Office and Royal Navy
- 3 years in wholesale trade and retail



# The challenge



**23 work sites**

**2500+ employees**

**Process management**

**24/7 operations**

**Collaboration**

**3 parent companies**

**Written processes**

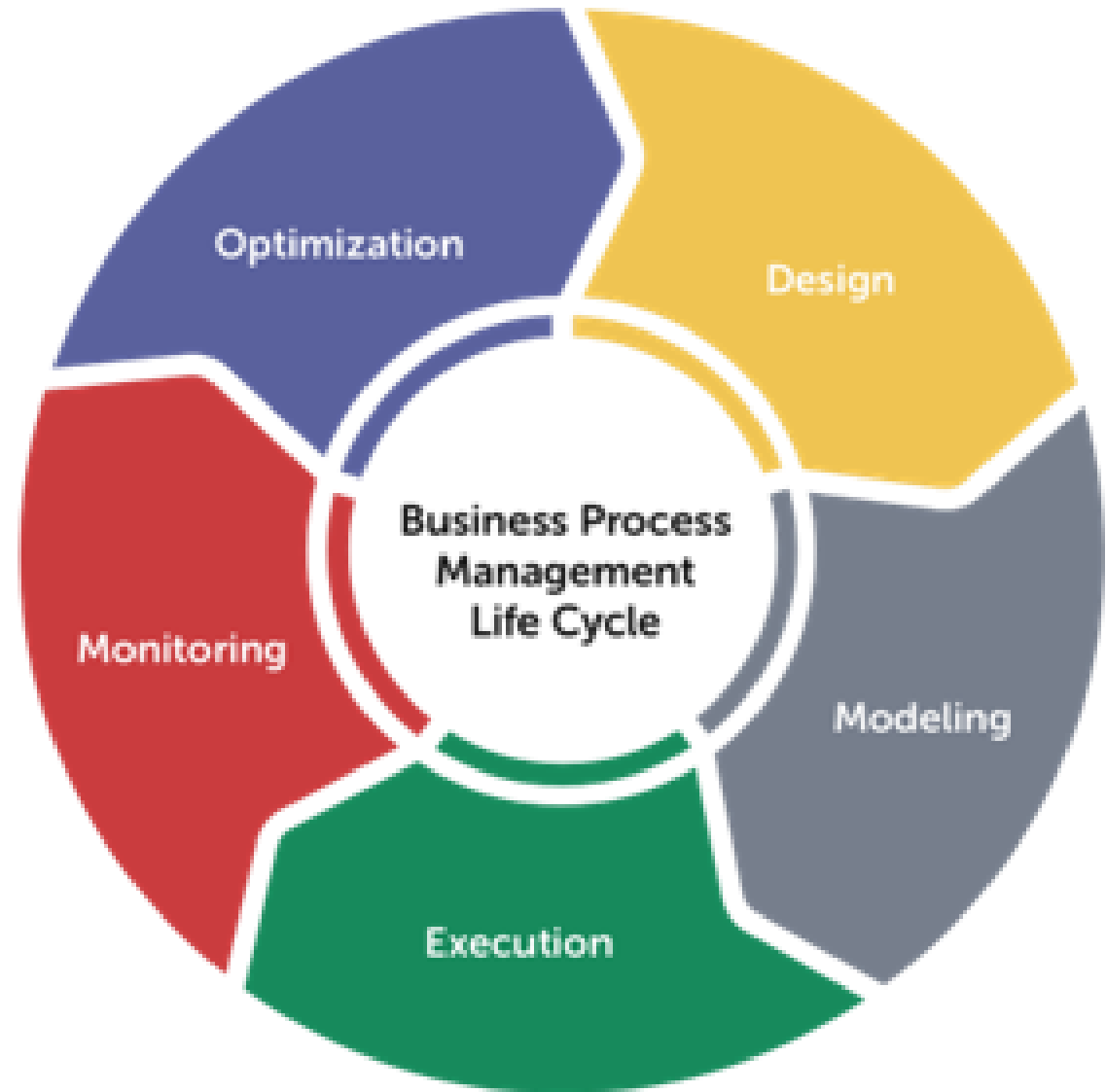
**Knowledge sharing**



# The response

Implementing a Business Process Management framework that offered:

- dynamic process mapping capabilities
- great user experience
- ability to map and edit processes quickly
- ability to align it to existing official documentation



# Business Process Management







## Business Process Management (BPM)

The BPM project was established in May 2021 with the aim of:

- driving process consistency
- providing a single source for all key SCS processes
- promoting collaboration across teams
- improving user experience, support and adoption

# BPM key elements

## Strategic approach

The BPM project and framework aligned to strategic intent and priorities

## User experience

BPM system needed to be easy to use for both modelers and end users. It needed to provide ability to link to existing documentation and create compelling artifacts

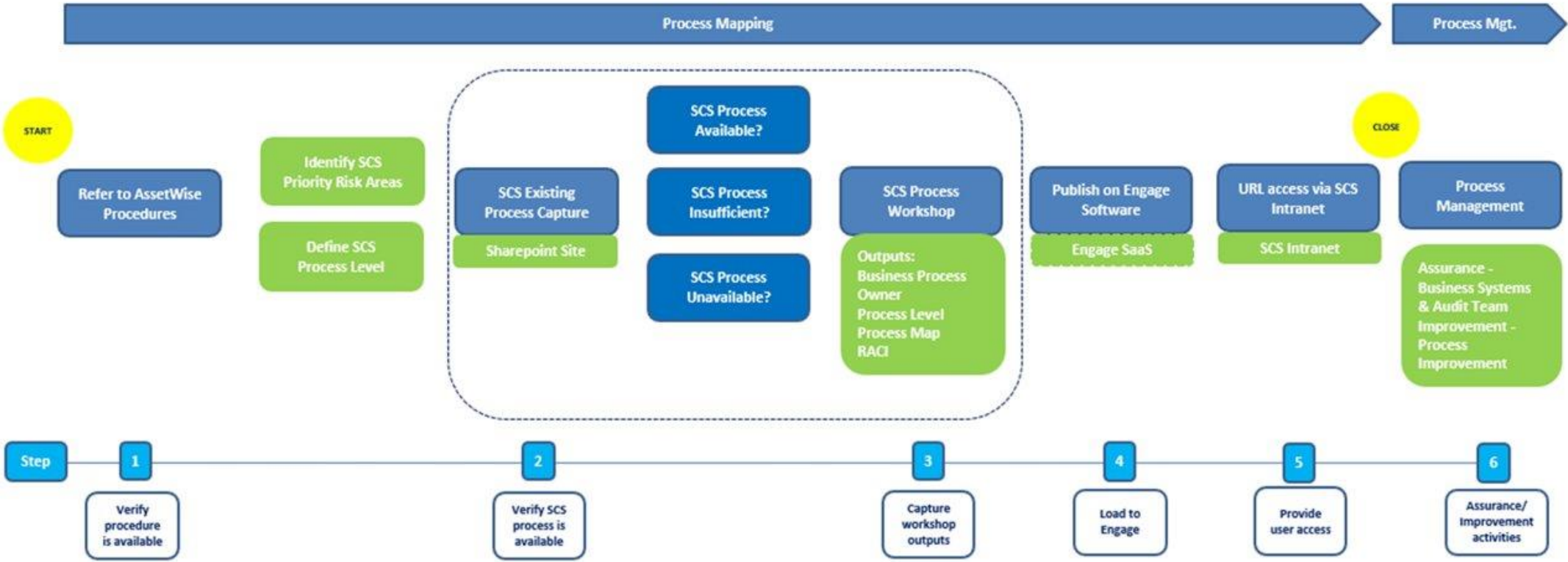
## Clear planning and governance

It needed to be planned and controlled properly to prevent a 'free for all' approach.

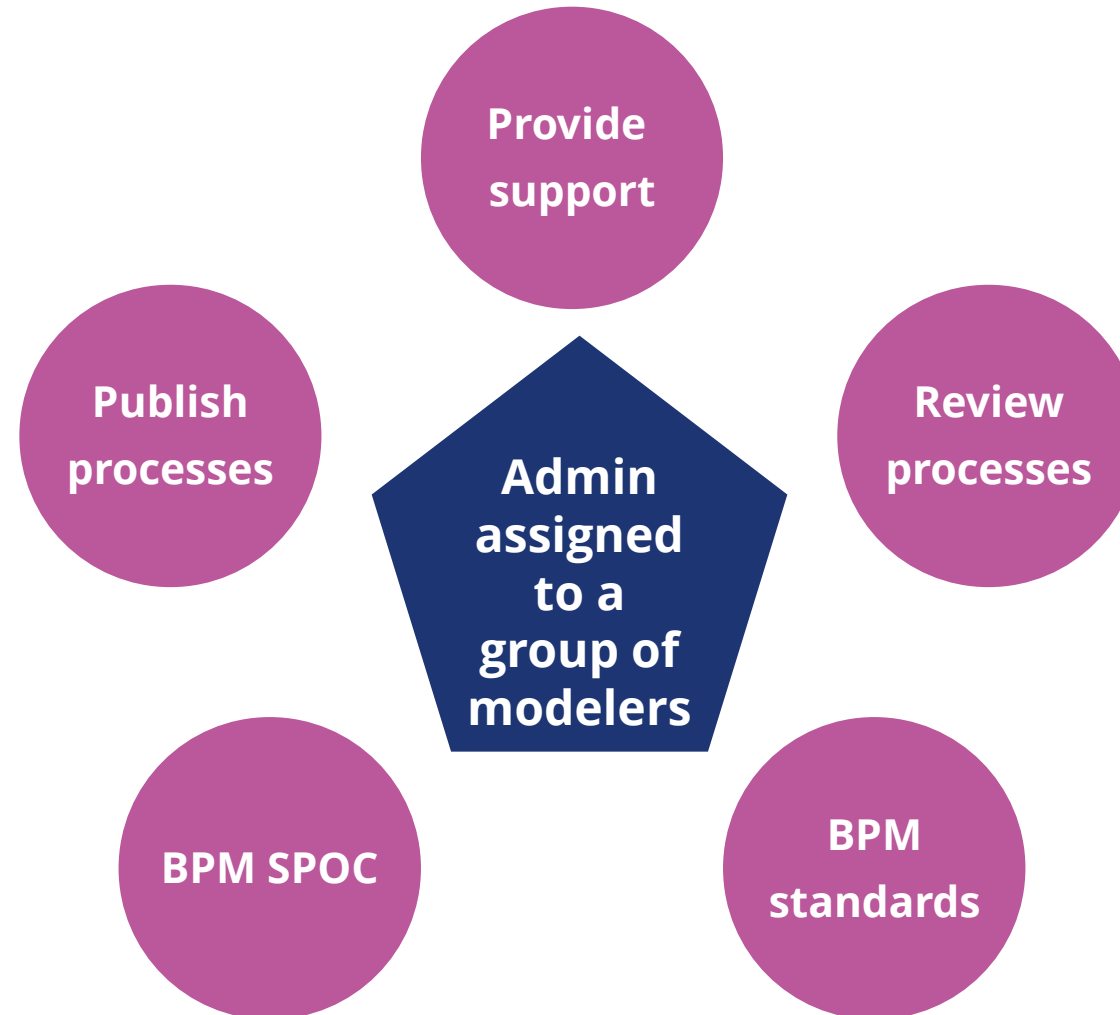


# BPM approach

Designed an approach aligned with how official documentation is managed



# Modelers support



# BPM facts and figures

34 modelers

3 system  
admin

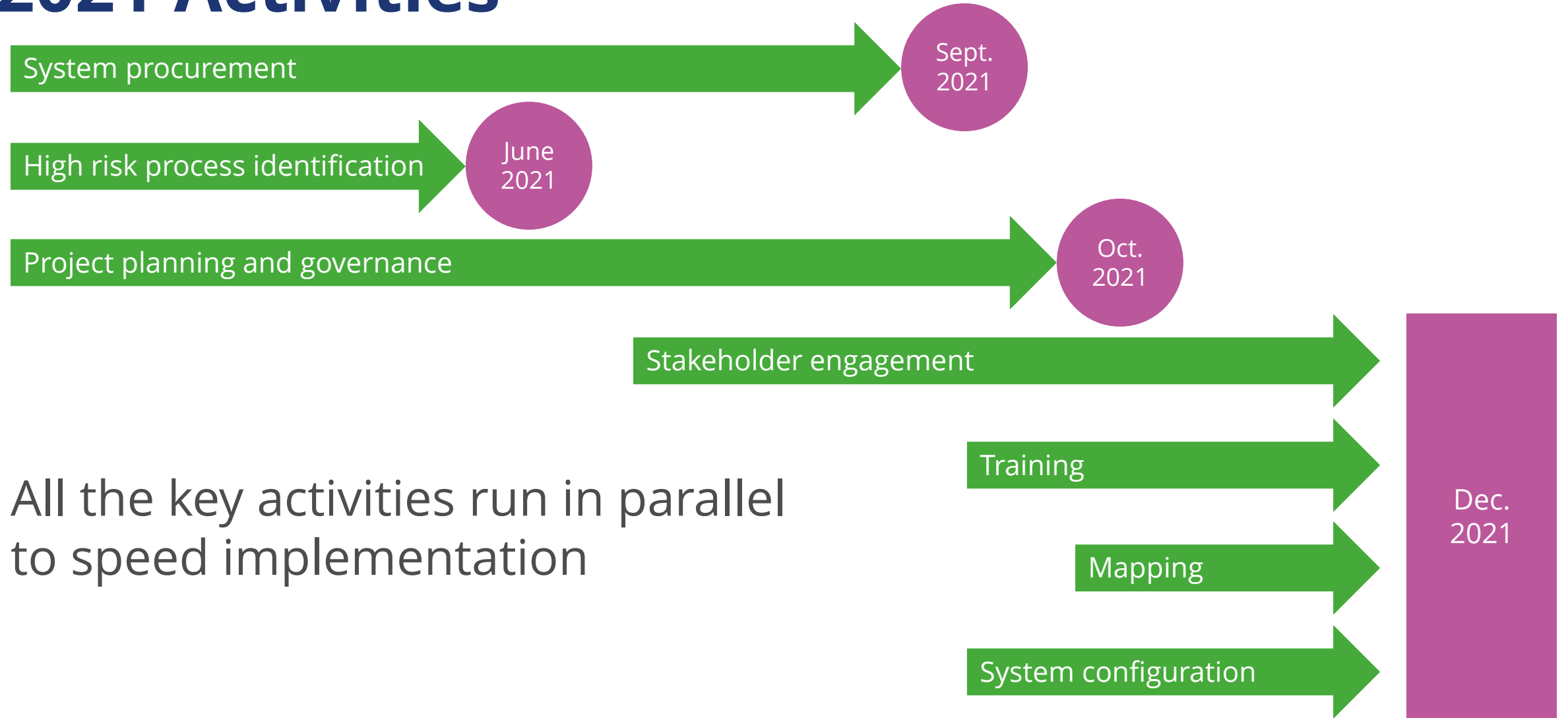
12 business  
areas

180  
identified  
processes

120  
published  
processes



# 2021 Activities



All the key activities run in parallel to speed implementation

# 2022 Activities

Best practice

Mar.  
2022

Process hierarchy development

Apr.  
2022

BPM reporting dashboard

July  
2022

Staff awareness: targeted comms, online briefings and roadshows

Dec.  
2022

Training

Dec.  
2022

In 2022 some of the project and governance documentation developed in 2021 were refined and staff engagement scaled up

# Examples of project and governance artifacts





# Scoping document

- A simple straight forward scoping document aligned to strategic intent and priorities of the organization.
- Project activities/tasks were documented and managed through Teamboard

1

Passionate about excellence

## Business Process Management – Phase 1

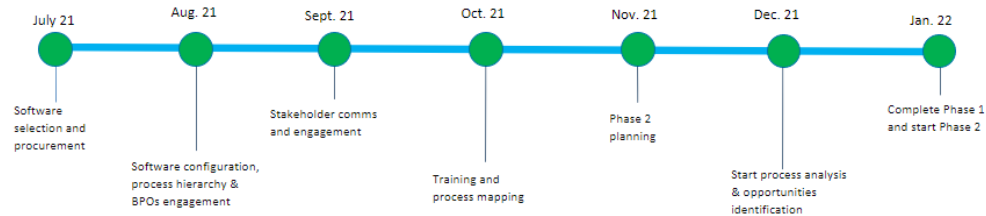
### Project Objectives

- Identify process priority areas for review
- Identify process ownership (sponsor and BPO=business process owner)
- Drive consistency
- Provide a single source for SCS processes
- Easy to access processes
- Promote collaboration across teams and organisations
- Improve user experience, support and adoption

### Outputs

- Process areas matrix
- Standard process hierarchy
- Consistent process maps
- Process Management standards
- RACI for each process
- Interactive graphical user interface
- Link processes to SCS procedures
- Process cost identification

### Phase 1 Project key milestones



Sponsor

Project Manager

Angelo Vinci

### In scope

- Processes identified as a [priority area](#)
- Process mapping and data
- Engage process set up
- Training and user guides
- Users set up on Engage Process
- Engage Process promotion and adoption activities
- Support process implementation

### Out of scope

- Procedures
- Process documentation (e.g. plan, deliverables)
- Performance metrics
- Process analysis
- Process Improvement
- Design & Technical Assurance

### Key Stakeholders

- Business Process Owners and their teams
- Business Systems & Audit
- IT
- Comms and Marketing team
- Project Improvement Team

# Project Plan

Initially the project plan was based on an Excel spreadsheet.

Process management Phase1 implementation											
Ref	Project stage	Action	Comments	Due date	Priority	Owner	Lead	Other key stakeholders	Resolution	Status	Date last reviewed
A-001	Procurement	Solution selection	IT led this action, but was supported by BSA and Project Improvement	Jun-21	High					Completed	14/07/2021
A-002	Procurement	Contract negotiations with supplier		Jul-21	High					Open	14/07/2021
A-003	Procurement	Contract signing		Aug-21	High					Open	14/07/2021
A-004	Procurement	SCS JV Recommendation Report on process modelling tool	The contract agreement is for 5 years and due to this a recommendation report needs to be completed and submitted to IPLT for approval as for standard governance procedure.	Jul-21	High					Open	14/07/2021
A-005	Operating Model	Identify implementation project manager	This is key as Engage needs only one point of contact during roll out and implementation. This person should also be responsible for driving and coordinating all process mapping and management activities.	Jul-21	High					Completed	14/07/2021
A-006	Pre-implementation	Develop implementation plan with RAID log		Jul-21	High					Completed	21/07/2021
A-007	Pre-implementation	Develop high level comms plan		Jul-21	Medium					Open	14/07/2021
A-008	Operating Model	Identify Senior System Owner		Jul-21	High					Completed	21/07/2021
A-009	Operating Model	Identify overall system lead and Engage relationship manager	It should be one person and ideally the project manager to ensure consistency post phase 1.	Jul-21	High					Completed	14/07/2021
A-010	Pre-implementation	Identify System Admin users	Not more than 3 people with ability to manage the solution, e.g. run reports, amend job roles list, add users to solution, manage dashboard	Jul-21	High					Completed	14/07/2021
A-011	Pre-implementation	Identify Modeler users	These are those that will map the processes and work with BPO	Jul-21	High					Open	14/07/2021
A-012	Pre-implementation	Set up training dates for both System Admin	Ideally during the 1st week of August.	Jul-21	High					Completed	14/07/2021
A-013	Pre-implementation	Set up training dates for modeler users		Jul-21	High					Open	14/07/2021
A-014	Pre-implementation	Provide Engage with list of System Admin and Modeler users	Important to set up on system correctly and provide right level of access	Jul-21	High					Open	14/07/2021
A-015	Training	Train System Admin users		Aug-21	High					Open	14/07/2021
A-016	Training	Train first cohort of modeler users		Aug-21	High					Open	14/07/2021
A-017	Training	Train second cohort of modeler users		Sep-21	Medium					Open	14/07/2021
A-018	Pre-implementation	Liaise with Engage on training delivery requirements	There is a level of customisation that Engage provide to the training to ensure it fits with what their clients want to achieve. Useful things to feed into the customisation piece would be RACI, process management standard (incl. the approach you Gary created). This could be done before or after service kick off activity.	Jul-21	High					Open	14/07/2021
A-019	Operating Model	Define a RACI	It's important to define roles and responsibilities with regards to the use of the solution, including role of BPO	Aug-21	High					Open	14/07/2021

Action Plan

Risks

Issues

Assumptions

Dependencies

Requests for Change

Lessons and Successes

# Teamboard planning

When contract was signed and access to EP granted the plan moved into Teamboard

The screenshot shows a Kanban board for 'Process Management Project - Phase 1'. The board is divided into four columns: RISKS (6 items), TO DO (6 items), DOING (0 items), and DONE (2 items). Each item card includes a title, a count, a priority level, and a status.

Column	Count	Item	Priority	Status
RISKS	6	User engagement and adoption	Medium	Open
RISKS	6	Demand for including out of...	High	Open
TO DO	6	Develop ongoing compliance and improvement managem...	Low	
TO DO	6	Organise 2022 BPM and Engage Process briefings	Low	
DOING	0			
DONE	2	EP configuration	High	
DONE	2	Single Sign On (SSO)	High	

1	Reporting period:	Overall status of the project	
<b>Business Process Management (BPM) – phase 2</b>		Project lead: Angelo Vinci Sponsor: Scott Murray	
Indicate below by adding 'Progressing' the stage you are at. If one stage has been completed, please add 'Completed' under the completed stage			
Define	Discover	Develop	Deliver
What has been achieved so far?			
What challenges have you encountered?			



**Actions completed**

Action	Lead	Comments

**Planned actions**

Action	Lead	Comments

**Risks and issues**

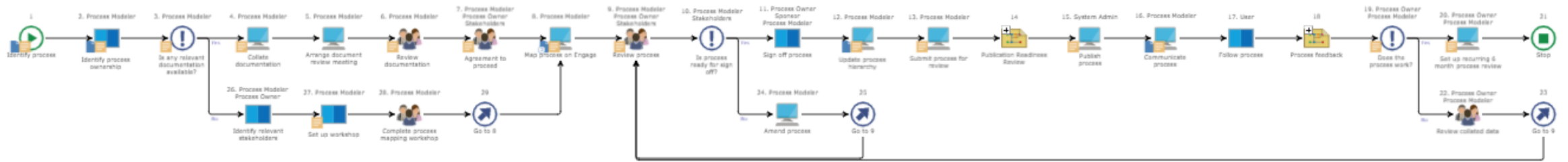
What is it?	Status	Comments

# Sponsor reporting

Template used for reporting progress to the sponsor during the BPM sponsor bi-weekly meetings

# How to map a process

- Developed mainly to provide modelers with what to consider when mapping a process
- Linked all best practice documents created to support process mapping standardisation

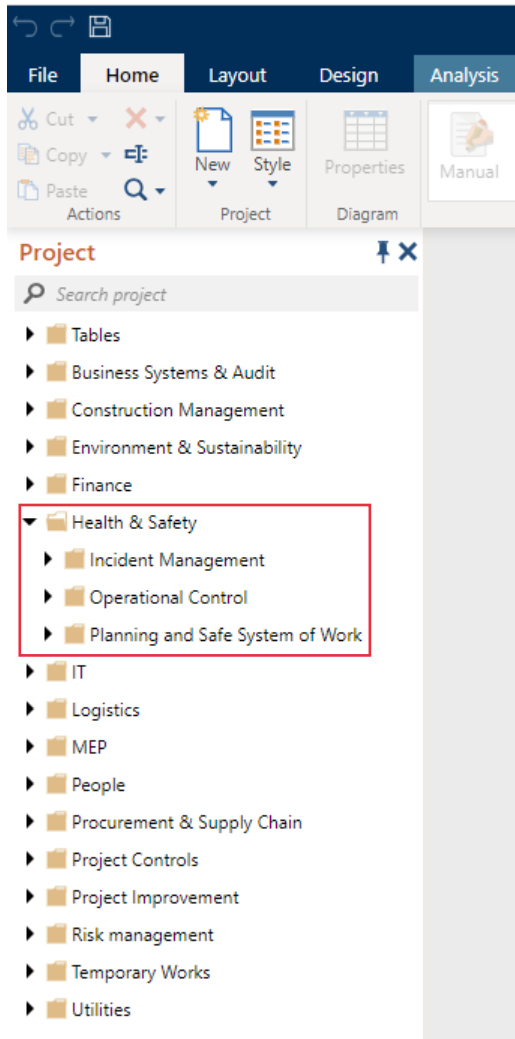


# Process hierarchy

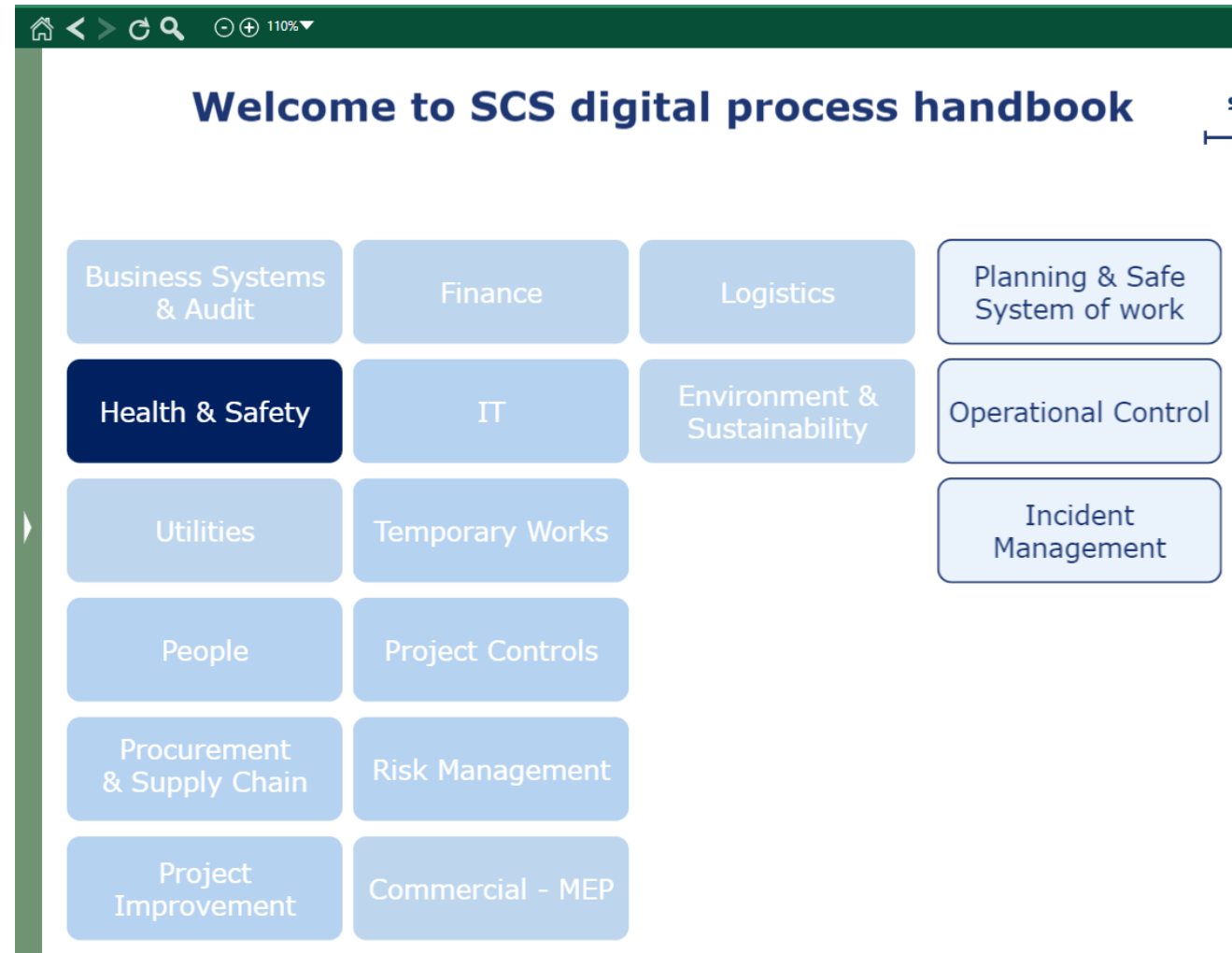
It is the key document where identified processes are documented and managed from

Process ownership			SCS Process Hierarchy				Process mapping				Publication Readiness Review		Process published	
Business area	Business Area director	Business Process Owner	Level 0	Level 1	Level 2	Level 3	Process Modeller	Start date	Forecast finish date	Actual finish date	Reviewer	Date Completed	Forecast date	Actual date
People	Name of director goes here	Name of process owner	People	Recruitment	Permanent staff recruitment			10/01/2022	28/02/2022	07/06/2022	Angelo Vinci	07/06/2022		
People	Name of director goes here	Name of process owner	People	Labour management	Labour recruitment			22/09/2021	08/10/2021	08/10/2021	Angelo Vinci	08/10/2021	08/10/2021	08/10/2021
People	Name of director goes here	Name of process owner	People	Labour management	Timesheet process			01/02/2022	30/06/2022		Angelo Vinci			
People	Name of director goes here	Name of process owner	People	Labour management	Off-hiring labour			04/07/2022	15/09/2022	24/08/2022	Angelo Vinci	31/08/2022	16/09/2022	13/09/2022
People	Name of director goes here	Name of process owner	People	Labour management	Quarterly labour review process			04/07/2022	15/09/2022	24/08/2022	Angelo Vinci	31/08/2022	16/09/2022	13/09/2022
People	Name of director goes here	Name of process owner	People	Labour management	Labour Upskill			01/10/2021	30/12/2021	03/12/2021	Angelo Vinci	03/12/2021	03/12/2021	03/12/2021
Commercial	Name of director goes here	Name of process owner	Procurement and Supply Chain	Supply chain	Business Assurance			11/10/2021	01/11/2021	02/12/2021	Angelo Vinci	02/12/2021	02/12/2021	02/12/2021
Commercial	Name of director goes here	Name of process owner	Procurement and Supply Chain	Procurement	Subcontract Procurement			01/10/2021	22/10/2021	02/03/2022	Angelo Vinci	23/02/2022	31/10/2021	02/03/2022
Commercial	Name of director goes here	Name of process owner	Procurement and Supply Chain	Procurement	Materials Procurement			18/10/2021	01/11/2021	12/05/2022	Angelo Vinci	17/05/2022	27/05/2022	26/05/2022
Commercial	Name of director goes here	Name of process owner	Procurement and Supply Chain	Procurement	Plant Hire Procurement			25/10/2021	08/11/2021	12/05/2022	Angelo Vinci	17/05/2022	27/05/2022	26/05/2022
Operational Excellence	Name of director goes here	Name of process owner	Project Improvement	Business Improvement	How to map a process			01/10/2021	14/10/2021	14/10/2021	Angelo Vinci	26/10/2021	22/10/2021	26/10/2021
Operational Excellence	Name of director goes here	Name of process owner	Project Improvement	Business Improvement	Improvement project journey			10/12/2021	31/01/2022	31/01/2022	Angelo Vinci	31/01/2022	31/01/2022	31/01/2022
Operational Excellence	Name of director goes here	Name of process owner	Project Improvement	Innovation	How to process an Innovation			01/10/2021	03/12/2021	06/12/2021	Angelo Vinci	08/12/2021	08/12/2021	08/12/2021

# Engage Process hierarchy

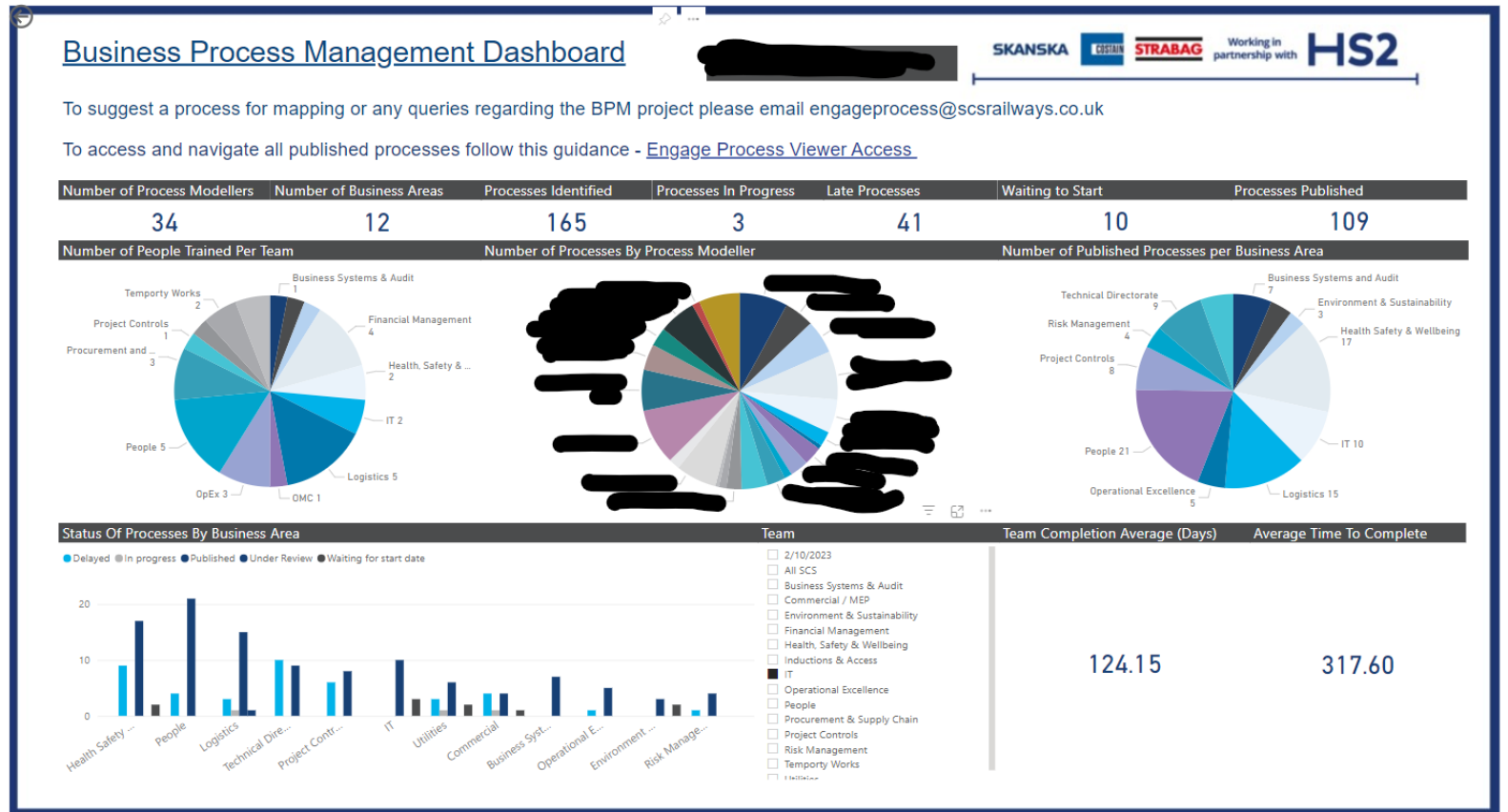


- The folders hierarchy in the Modeler is an exact replica of the process hierarchy, including sub folders
- And it was replicated on the Viewer App home page



# Reporting dashboard

- The process hierarchy provides all the data for the dashboard
- It updates daily
- It is used for reporting at senior leadership level
- It is accessible to all employees





# Roles and responsibilities

It highlights the responsibilities associated with key BPM roles

## Resources Services offer

### Business Process Owner (BPO)

**Who is it?**

The Director/Head of a Service/Department where the processes sit.

**Accountabilities:**

- Process objectives
- Process design
- Process documentation (e.g. guidance, procedures etc.)
- Process sign off
- Process communication
- Process compliance
- Provide process modeler resources
- Agree process priorities
- Process initiatives sponsor

### Business Process Modeler

**Who is it?**

The person nominated by the BPO to map relevant processes and capture relevant process data

**Responsibilities:**

- Document and maintain the process
- Capture process data
- Train and advice users on process
- Engage with relevant stakeholders including BPO to ensure process is accurate
- Communicate process changes

## Support the BPM project offers

### BPM SME

**Who is it?**

The person that has:

- in depth understanding of Engage Process
- in depth understanding of process management

**Accountabilities:**

- System admin
- Support to Business Process Modelers
- BPM project manager
- Stakeholders engagement
- Users adoption
- Ongoing relationship with Engage Process

### System Admin

**Who is it?**

The person (not more than 3) that have access to Engage Process admin centre and are able to configure the software, incl. assigning licences.

**Accountabilities:**

- System configuration
- System admin
- Process publication
- Licences administration
- Users support

# User engagement



# User engagement activities



# Viewer App development

The screenshot displays the 'SCS digital process handbook' viewer app. The interface features a dark green header with navigation icons and the text '- Homepage -'. Below the header, the main content area is titled 'Welcome to SCS digital process handbook' and includes logos for SKANSKA, COSTAIN, STRABAG, and HS2. The central part of the app is divided into two main sections: a grid of topic tiles on the left and a list of action tiles on the right. The left section contains 12 dark blue tiles with white text, arranged in a 6x2 grid. The right section contains six light blue tiles with dark blue text, arranged vertically. A red border highlights the grid of topic tiles and the list of action tiles. The right side of the app has a sidebar with icons for Description, Comments, Document, and Properties.

**Grid of Topic Tiles:**

Business Systems & Audit	Finance	Logistics
Health & Safety	IT	Environment & Sustainability
Utilities	Temporary Works	
People	Project Controls	
Procurement & Supply Chain	Risk Management	
Project Improvement	Commercial - MEP	

**List of Action Tiles:**

- Navigation guidance**  
Click on this tile to for guidance on how to navigate the SCS digital process handbook
- Navigation video**  
Click on this tile for a video guidance on how to navigate the SCS digital process handbook
- Technical Processes**  
Click on this tile to view and find information on mapped Technical Processes
- SCS documents library**  
Click on this tile to search & navigate SCS official documents
- Process mapping dashboard**  
Click on this tile to view processes mapped, in progress and coming up
- Process mapping request**  
Click on this tile to suggest a process that should be mapped

# Navigation guidance

## How to read/use Swim Lanes?

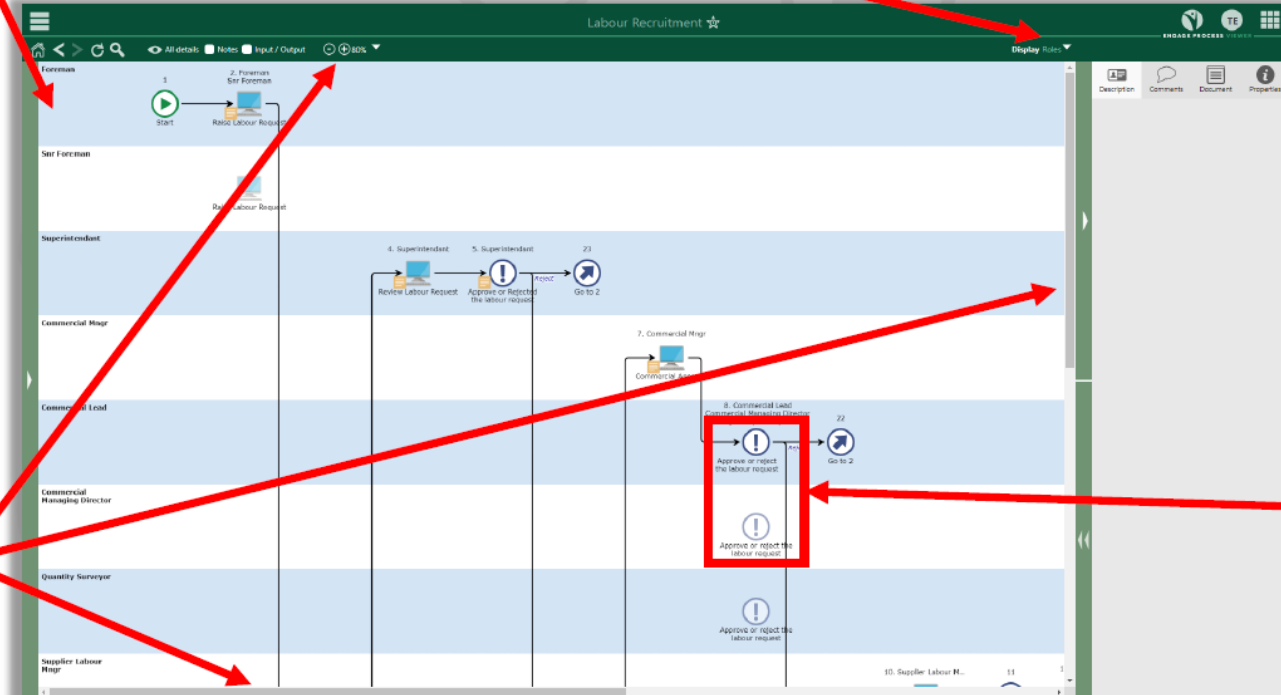


On the left side you see the name of the role.

Select an item to see the swim lanes of the process based on that item. In this case 'Roles' is selected.

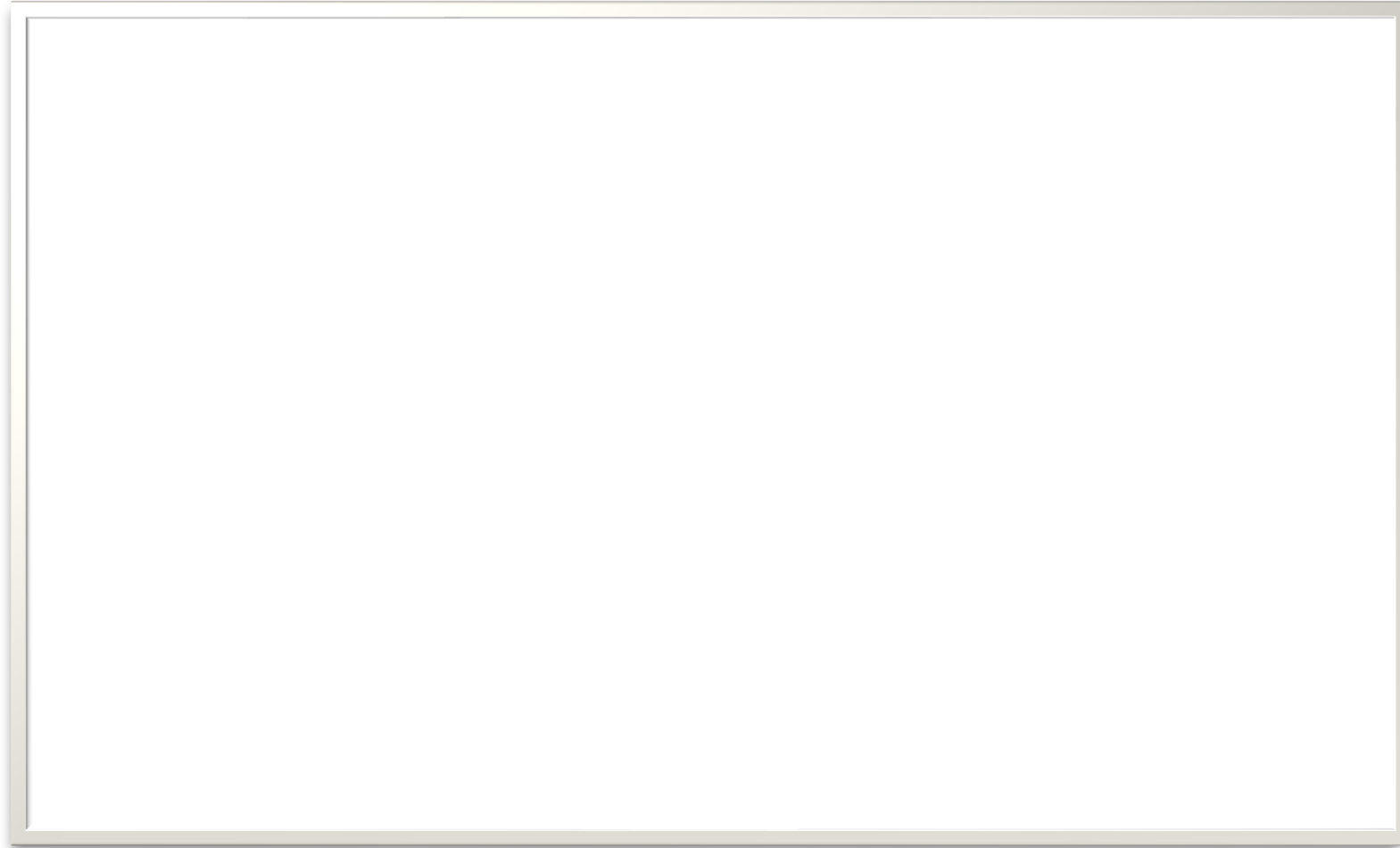
In each swim lane you can see the activities of that specific role.

Scroll down or left to see the rest of the process or change the zoom factor.



When there are more than 1 role assigned to an activity then the activity will be in the lane of the 1<sup>st</sup> role. There's a transparent icon of that activity in the lane(s) of the other role(s).

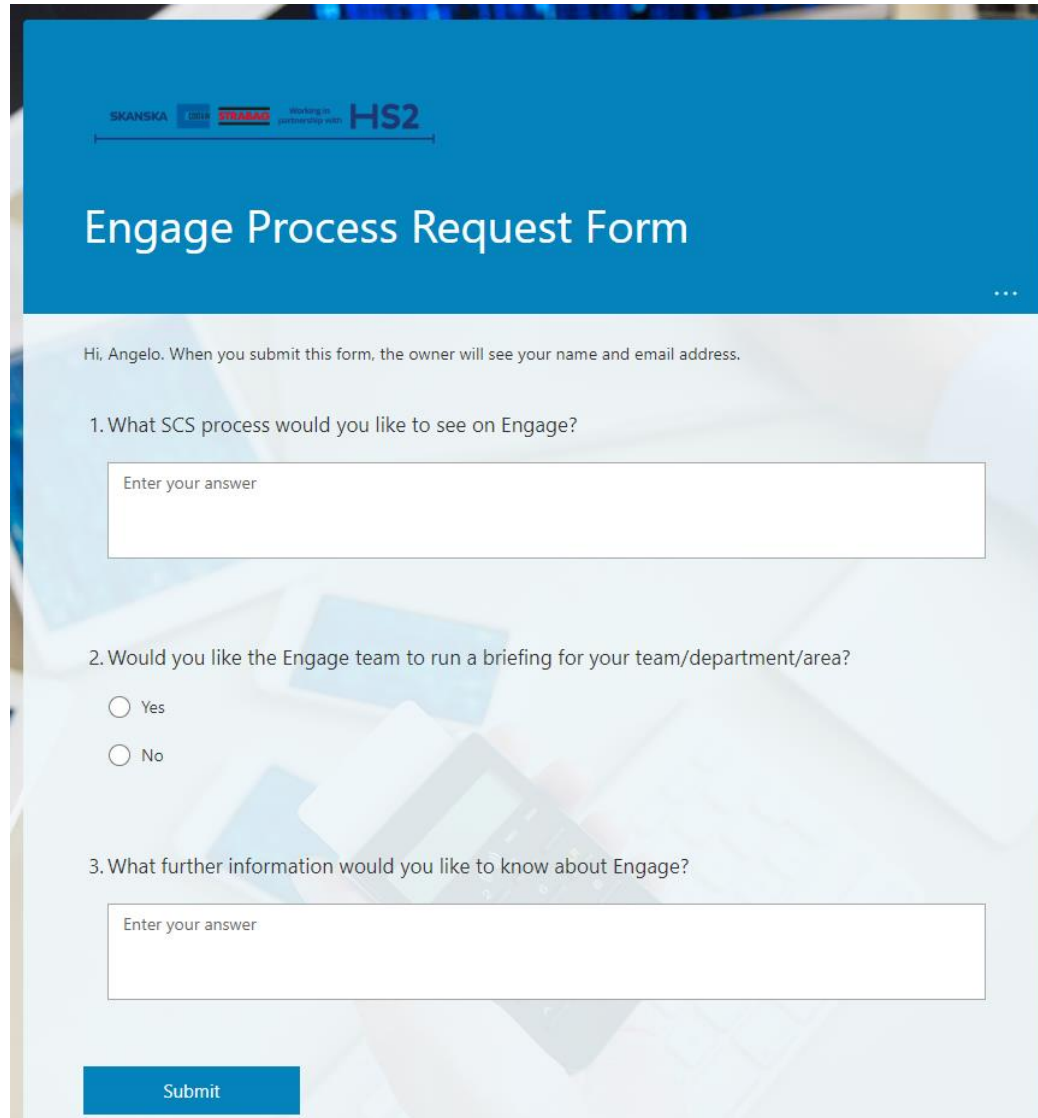
# Navigation video



# Process request form

A simple Microsoft Form to either request a briefing or suggest processes.

It is available from the ViewerApp homepage



The screenshot shows a Microsoft Form titled "Engage Process Request Form". At the top, there are logos for SKANSKA, HSB, and HS2, with the text "Working in partnership with" between HSB and HS2. Below the title, a message reads: "Hi, Angelo. When you submit this form, the owner will see your name and email address." The form contains three questions:

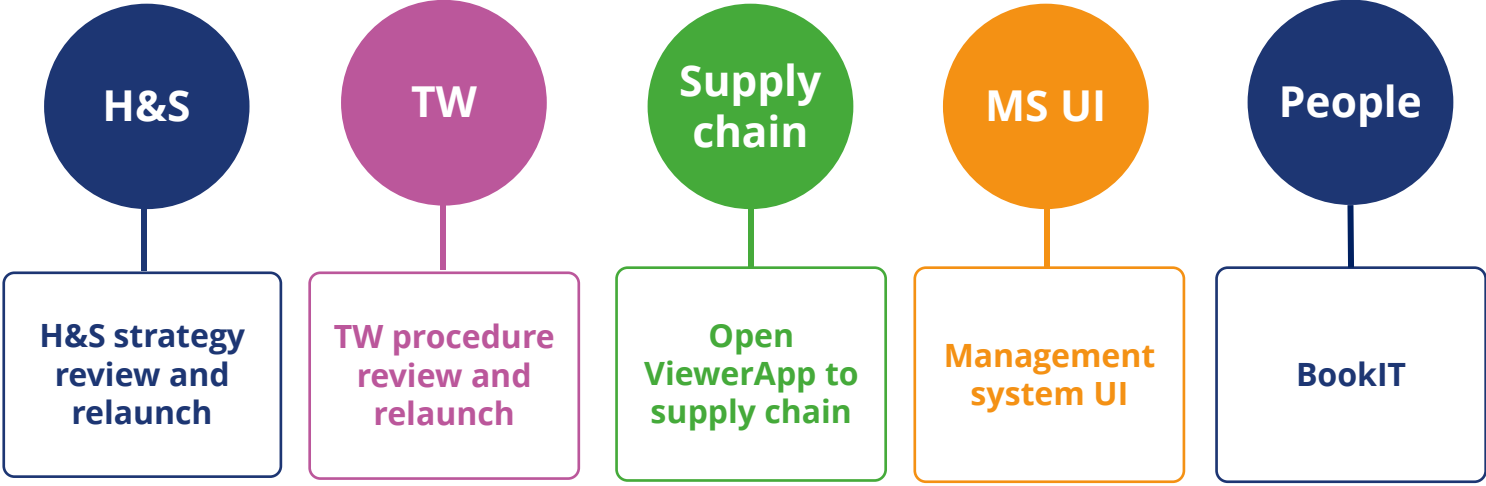
1. What SCS process would you like to see on Engage?  
Input field: Enter your answer
2. Would you like the Engage team to run a briefing for your team/department/area?  
Radio buttons: Yes, No
3. What further information would you like to know about Engage?  
Input field: Enter your answer

A blue "Submit" button is located at the bottom of the form.

# Impact








# Management system UI

You are here > Home > Operations > Libraries & Quick links > Management System Library

- Management System Library
- Management System Library
- Home
- Area Central
- Area East
- Area West
- Business Continuity
- Business Systems & Audit
- Commercial
- Consents & Engagement
- Environment & Sustainability
- Finance
- Health Safety & Wellbeing
- IT
- Legal
- Logistics
- Office Management
- Operational Delivery
- Operational Excellence
- Options, Mitigation & Change
- People
- Planning & Programming
- PMT
- Procurement
- Project Controls
- Technical Directorate
- Tunnelling
- Utilities



## SCS Management System

Welcome to the home of the SCS Management System. From this page you can search and navigate the entire SCS documented Management System.

### Programme Management

Project Execution Plan (PEP)

### Operations

Area Wide  
Operational Delivery

Area West

Area Central

Area East

Logistics (including Security)

### Enabling Functions

Business Systems & Audit	Business Continuity	Commercial	Consents & Engagement
Environment & Sustainability	Finance	Health, Safety & Wellbeing	IT
Legal, Ethics & Compliance	Office Management	Operational Excellence	Options, Mitigation & Change
People	Planning & Programming	PMT	Procurement
Project Controls and Risk Management	Technical Directorate	Tunnelling	Utilities

- Business Systems & Audit
- Business Systems & Audit
- Home
- Policies
- Plans & Strategies
- Procedures
- Forms and templates
- Guidance
- Process Maps (in Engage)
- Administration

## Business Systems and Audit

Back to Management Systems Home

### Policies

Quality & Assurance Policy

### Plans & Strategies

Document Management and Control Plan

### Procedures

- Evaluation of Client Satisfaction Lot S1 and S2
- SCSJV Management Review Procedure
- Internal & External Audit Procedure
- Management of the main documents of the SCS management systems
- Main Works Process Map - S1 and S2

### Process Maps

- Writing & issuing new documentation Process Map
- EMT Document Review Process Map
- Supply Chain Documentation Management Process Map
- Receiving Incoming Documentation Process Map
- Audit Risk Identification & Selection Process Map

### Forms & Templates

- Review matrix for documents on EMT
- Document Number Request Template
- Responsible Accountable Consulted Informed (RACI) chart template
- Quality Report Template for S1 and S2
- Meeting Agenda and Record for S1 and S2
- Customer Satisfaction Survey Template
- Quality Management Review Template for Agenda and Report Lot S1 and S2

### Guidance

- AssetWise user-guide
- Enable My Team (EMT) User Guide

**Thank you**

