GIIƏ

STANDARD INFORMATION APPROACH METHODOLOGY



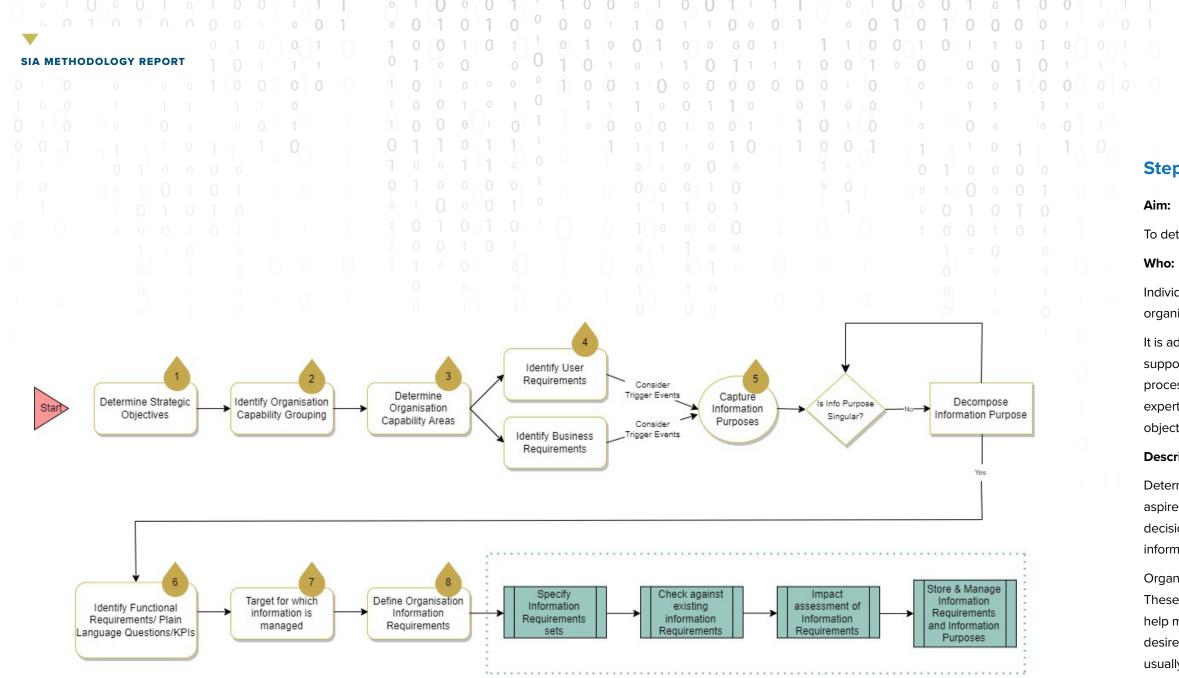


Figure 2 - Flow Diagram of the Overall Standard Information Approach Methodology

Organisations typically have multiple strategic objectives. These may include targets and performance measures to help monitor and understand performance in relation to desired overall outcomes. Additionally, organisations will usually need to fulfil a range of legislative and regulatory requirements which require information and documentation to demonstrate compliance. These strategic objectives, targets and legislative or regulatory requirements are typically described at too high a level to be able to develop and agree clear information purposes. However, they may form the basis for organisational information requirements (OIRs: "information needed by an organisation in order to satisfy its business objectives"). Therefore, the SIA methodology seeks to establish what information purposes support what strategic objectives, targets and performance measures. The information purposes so identified can then be used to develop a consistent and detailed set of OIRs, which can subsequently cascade and be filtered appropriately into AIRs, PIRs and EIRs, and still be tracked back to the information purposes¹.

Step 1: Determine strategic objectives

To determine the organisation's strategic objectives.

Individual(s) or group(s) with an understanding of the organisation and its strategic objectives.

It is advisable to have an information management expert supporting the whole methodology to help guide the process, but at this stage it is most likely that subject matter experts will be needed to identify and explain all relevant objectives.

Description:

Determine the strategic objectives that the organisation aspires to achieve. These strategic objectives influence decision-making across the organisation and require information to inform this.

Hints:

- Strategic objectives are often directly connected to the organisation's stated vision or mission and may be contained in related strategic direction documents.
- Organisations may include directives in business policies, plans and procedures to deliver their overall vision, mission, and strategic outcomes or objectives. Strategic objectives may also be found within organisational or departmental policies, plans and procedures - for example, in the organisation's Asset Management Plan.
- To begin with, it will be easier to start with one strategic objective and work through the methodology focusing just on this.
- For ease of understanding and cross-referencing later in the methodology, it is advisable to assign unique identifiers to each of the objectives, and subsequent purposes (for example, in the demonstrator workbook image below, the strategic objectives are numbered SO 01, SO 02, etc).

Key Questions:

- What are your strategic objectives?
- What information might be needed to show achievement of the objectives?
- · Which strategic objective/s do you want to take through the SIA methodology and why? Are they ones that are most important to you, or are they the easiest examples to start with?

¹Further information on Information Requirements may be found at ISO 19650 Guidance D: Developing information requirements (notion.site)



SIA	METHODO	DLOGY	REPORT

V

STEP 1:	Fire Safety	Information	Demonstrator
---------	--------------------	--------------------	--------------

Strategic Objective:	To run and operate a safe and compliant estate
Capability Grouping:	Safety
Capability area:	Fire Safety
Business Requirement:	Our estate shall include fire safety considerations within planning, design and delivery
	of asset
Information purpose:	Design Gateway Assurance against client Fire Safety requirements

Step 1: Strategic Objective ID Determine Strategic Objectives SO.01 Run and operate a safe and compliant estate

Example from the Fire Safety Information Demonstrator Workbook:

Run & operate a safe and compliant estate > Safety > Fire Safet Fire Safet Information purposes All Compliance with Building Regulation Image: Compliance with Building Regulation Define Client Fire Safety Information Requirements Image: Compliance against client Fire Safety requirements Design Gateway Assurance against client Fire Safety requirements Image: Compliance against client Fire Safety requirements Information required by Principal Designer to undertake PD role Required by LAP to plan project delivery Business cont Tendering a Project/Programme

Ribbon diagram of the demonstrator





					> Fire S										γ Υ Fil	ters	
					: Determ			gic (obje	ctive	s						
					0 1	0	0	0									

Org. information requirements

Fire alarm and detection specification
Fire suppression specification
Outline cause-and-effect matrix
Smoke control specification
Applicable fire safety legislation
Approval process within organization for fire safety
Business continuity, property protection, asset recovery requirements, level of resili.
Fire safety management structure, roles and responsibilities
Handover and soft landings process in organization for fire safety
Operational fire safety requirements/procedure
Organization fire safety standard
Lift specification
Existing building fire strateg
Fire safety log bool Fire safety manua
Historic fire incident:
Risk assessment
Access routes, turning facilities and hardstanding
inuity, property protection, asset recovery requirements, level of resilience statement
Existing structural, external wall and site conditions/materials Firefighting facilities within building
Legal constraints (site boundaries, shared escape routes, etc.
Location of external inlet points
Nearest fire station
Occupant characterization (type, population, distribution, etc. Organisation handover and soft landings process for fire safet
organisation nandover and solelandings process for the salet

Planning constraints (heritage listings, etc.) Provision of hydrants near/on site

Step 2: Identify organisation capability grouping

Aim:

To break down the strategic objectives, directives and plans and identify the relevant organisation departments, operations, functions (capability groupings)² that deliver, or contribute to delivery of, the objectives.

Examples of capability groupings:

Str	ategic	Co	re (Customer Facing)	Su	pport
1.	Business Planning	6.	Customer Management	10.	HR
2.	Marketing	7.	Strategic Asset Management	11.	Supplier Management
3.	Policy	8.	Regulatory duties and Compliance	12.	Finance Management
4.	Strategic Finance	9.	etc	13.	IT Support
5.	etc			14.	etc

Who:

Individual(s) or group(s) with an understanding of the organisation and the way in which it is structured or organised from a business perspective to deliver its strategic objectives.

Description:

Identify the capability grouping(s) relevant to a specific strategic objective. This will help identify the people who can describe activities, tasks and decisions which will require information, and what that information should be. It will also allow for information purposes and requirements which relate to a particular grouping to be grouped together. This can be useful in identifying information sets which can be specified and then delivered in a consistent manner. The next step will be to break the grouping down into capability areas (see Step 3).

Hints:

- A capability is 'what' the business or perhaps what a department or team does.
- Start with just one capability grouping (a department or team) and work through the methodology focusing just on this.

Key Questions:

- What groups, departments or teams are relevant to this strategic objective?
- Which groups, departments or teams do you want to take through the SIA methodology?

² Capability grouping: the department or functional team that delivers, or contributes to delivery of, a particular strategic objective.

STEP 2: Fire Safety Information Demonstrator

Strategic Objective: To run and operate a safe and	con
Capability Grouping: Safety	
Capability area: Fire Safety	
Business Requirement: Our estate shall include fire safe	ety c
Information purpose: Design Gateway Assurance age	ainst

Information pu	rpose: Design Gateway Assurance against client Fi	e Safety requireme	nts
	Step 1:		Step 2:
Strategic Objective ID	Determine Strategic Objectives	Organisation Capability Grouping ID	Organisation Capability Grouping
SO.01	Run and operate a safe and compliant estate	CG.01	Safety
		CG.02	Maintenance
		CG.03	Compliance
		CG.04	Asset Operations

Example from the Fire Safety Information Demonstrator Workbook:

0	0	1	0		0	00	0		()		1	0
					10					0	0	
					10 1	• <u>0</u>	1995	0	0	1		
					0							
					0 0							
				10								
				1-10								
				1								
0	1	0	0	0								
0	0	0	1			1	0	0	1	0	-1	

mpliant estate

considerations within planning, design and delivery of asset

nation numbered All

Standard Info. Approach: Fire Safety Information Demonstrator > Run & operate a safe and compliant estate > Safety > Fire Safety Filters

Org information re

ormation purposes All	Org. information requiremen
Compliance with Building Regulation	Fire alarm and detection specification
Compliance with Building Regulation	Fire suppression specification
	Outline cause-and-effect matrix
Define Client Fire Safety Information Requirements	Smoke control specification
	Applicable fire safety legislation
	Approval process within organization for fire safety
Design Gateway Assurance against client Fire Safety requirements	Business continuity, property protection, asset recovery requirements, level of resili Fire safety management structure, roles and responsibilities
Information required by Principal Designer to undertake PD role	Handover and soft landings process in organization for fire safety
	Operational fire safety requirements/procedures
Required by LAP to plan project delivery	Organization fire safety standards
Tendering a Project/Programme	Liff specification Existing building fire strategy Fire safety log book Fire safety log book Fire safety manual Historic fire incidents Risk assessments Access routes, turning facilities and hardstanding Business continuity, property protection, asset recovery requirements, level of resilience statement Existing structural, external wall and site conditions/materials Firefighting facilities within building Legal constraints (site boundaries, shared escape routes, etc.) Location of external inlet points Nearest fire station Occupant characterization (type, population, distribution, etc.) Organisation handover and soft landings process for fire safety Planning constraints (heritage listings, etc.)

Step 2: Identify organisation capability grouping

Ribbon diagram of the demonstrator

Step 3: Determine the capability areas

Aim:

From the organisation's capability groupings (they may be departments or teams), identify the relevant capability areas³ within a grouping.

Who:

At this point, the roles/disciplines/subject matter experts should consider who is relevant and should have a relevant input in identifying the areas within each capability grouping.

Description:

Organisation capability groupings are high-level and can span from policy, through strategic asset management to IT (information technology) support. To be able to identify the uses and needs for information, it is important to understand the end user of that information. A wide range of capability areas may be packed into one strategic objective. It is

STEP 3: Fire Safety Information Demonstrator

Strategic Objective:	To run and operate a safe and co									
Capability Grouping:	Safety									
Capability area:	Fire Safety									
Business Requirement:	Our estate shall include fire safety									
Information purpose:	Design Gateway Assurance agains									

important that information is delivered which is appropriate to the discipline and level of skill of the information consumer. This step enables this important link to be made.

Hints:

- As with the capability groupings, capability areas can also be derived from organisation/ business policies, plans and procedures.
- Capability areas may differ from organisation to organisation.

Key Questions:

- For the capability grouping under examination, what are the capability areas?
- Is there a particular order or priority of the capability areas to be tackled?

³ Capability area: within a capability grouping, 'what' the department, group or functional team does to deliver, or contribute to delivery of, a particular strategic objective.

ompliant estate

considerations within planning, design and delivery of asset

st client Fire Safety requirements

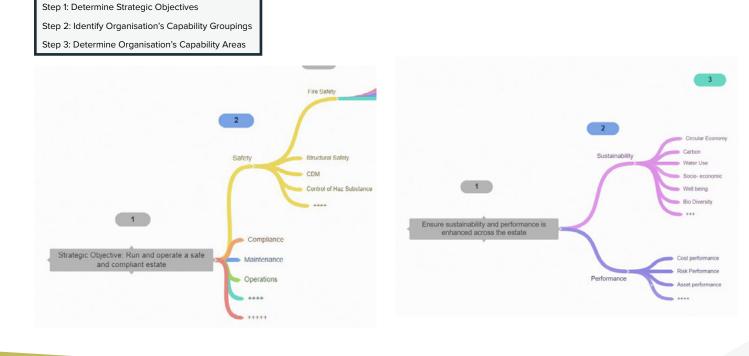
	Step 1:		Step 2:		Step 3:
Strategic Objective ID	Determine Strategic Objectives	Organisation Capability Grouping ID	Organisation Capability Grouping	Organisation Capability area ID	Organisation Capability areas
30.01	Run and operate a safe and compliant estate	CG.01	Safety	CA.01	Fire Safety
				CA.02	Structural Safety
				CA.03	CDM
				CA.04	Control of Haz Substances
		CG.02	Maintenance		
		CG.03	Compliance		
		CG 04	Asset Operations		·

Example from the Fire Safety Information Demonstrator Workbook:

Illustration of how the ribbon diagram builds up using the Demonstrator for two of the strategic objectives:

a. Run and operate a safe and compliant estate

b. Ensure sustainability and performance are enhanced across the estate



Bu
Bu
Bu
17
Business continu

Ribbon diagram of the demonstrator



Step 3: Determine

Standard Info. Approach: Fire Safety Information Demonstrator

r > ety									Filters	
e th	e ca	apak	oility	area	IS					
0	0	0								

Org. information requirements

Fire alarm and detection specification
Fire suppression specification
Outline cause-and-effect matrix
Smoke control specification
Applicable fire safety legislation
Approval process within organization for fire safety
Business continuity, property protection, asset recovery requirements, level of resili
Fire safety management structure, roles and responsibilities
Handover and soft landings process in organization for fire safety
Operational fire safety requirements/procedures
Organization fire safety standards
Lift specification
Existing building fire strategy
Fire safety log book
Fire safety manual Historic fire incidents
Risk assessments
Access routes, turning facilities and hardstanding
ntinuity, property protection, asset recovery requirements, level of resilience statement
Existing structural, external wall and site conditions/materials
Firefighting facilities within building
Legal constraints (site boundaries, shared escape routes, etc.) Location of external inlet points
Nearest fire station
Occupant characterization (type, population, distribution, etc.)
Organisation handover and soft landings process for fire safety

Planning constraints (heritage listings, etc.) Provision of hydrants near/on site

Step 4: Identify user and business requirements

Aim:

To determine the reasons users need information, and from this to identify the business requirement for information which can ultimately be connected back to the organisation's strategic objectives.

Who:

The subject matter experts and the end-users of the information to be defined (examples are provided in the fire safety example below).

Description:

Following identification of the capability areas (Step 3), it becomes possible to identify the relevant subject matter experts who help define the purposes that need information and the end-users of that information. There are two steps to capturing user and business requirements:

- a. Undertake discovery sessions with the relevant subject matter experts/users for each capability area to determine:
- their role
- how they do what they do
- their true goals, needs, and success criteria for achieving the desired outcomes
- their pain points.

b. Following the user discovery sessions, define the business requirements⁴. The aim should be to frame them as formal statements of intent which clearly relate to the relevant strategic objective.

Hints:

- One approach to this step would be to employ agile methodologies that help achieve a structured process of eliciting user requirements.
- Subject matter experts consulted as part of these user discovery sessions will help refine the capability areas (Step 3) that sit underneath a capability grouping (Step 2).
- User requirements help determine the business
 requirements relevant to the capability area.

Key Questions:

- What is your role where does it sit within the organisation and how does it relate to the organisation's strategic objectives?
- How do you deliver your role?
- What does your job entail can you describe the main goals, your needs and the success criteria that help you to know you have achieved them?
- What are the sorts of things which make your job difficult?
- What decisions do you have to make, and what information do you use to inform them?

⁴ Business requirements describe why an activity, task or process is needed, whom it will benefit, when and where it will take place, and what standards will be used to evaluate it.

STEP 4: Fire Safety Information Demonstrator

	U · 1 0 0
Strategic Objective:	To run and operate a safe and cor
Capability Grouping:	Safety
Capability area:	Fire Safety
Business Requirement:	Our estate shall include fire safety
Information purpose:	Design Gateway Assurance agains

Fire safety subject matter experts to include but not limited to the following:

- Authority having jurisdiction
- Principal Designer
- Fire Safety Design: Technical Assurance
- CDM advisor

	Step 4:
Business Requirement ID	Business Requirements
BR.001	Our estate shall include fire safety consider
BR.002	We shall minimise disruption to business of
BR.003	We shall protect our assets and minimise p
BR.004	We shall provide a safer built environment t
<u>.</u>	
a	

Example from the Fire Safety Information Demonstrator Workbook:



0				1	0	0 1			0	0	0
0	0	\cap	1		\cap		1	d o	1	_1	

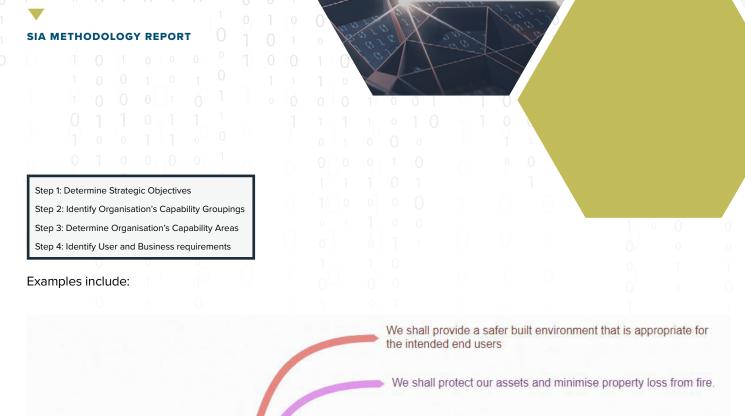
mpliant estate

y considerations within planning, design and delivery of asset st client Fire Safety requirements

rations within planning, design and delivery

operations from fire property loss from fire.

that is appropriate for the intended end users



Minimise disruption to business operations from fire

Our estate shall include fire safety considerations within planning, design and delivery stages

Step 4: Identify user and business requirements

Targets for which info. is managed

++++

Standard Info. Approach: Fire Safety Information Demonstrator > Run & operate a safe and compliant estate > Safety > Fire Safety

Info. exchange milestone

Please make your selection here and click on 'Apply Filters' button

Business	requirements
----------	--------------

Fire Safety

Minimise disruption to business o...
 Brief
 Our estate shall include fire safety ...
 Concept Design

✓ We shall protect our assets and mi... □ Detail Design

Brief
 Facility
 Concept Design
 Fire Alarm
 Detail Design
 Fire Suppression
 Handover
 Floor
 Spatial Coordination
 Lift
 Management arrangements
 Smoke Control
 Space

Zone

Data type
Geometrical
Structured Data

Unstructured Documentation

Trigger event
Refurb
Refurb/New Build

Close

Step 5: Capture information purposes

Aim:

To identify and record information purposes, ensuring that the connection back to the relevant strategic objective(s) is retained.

Who:

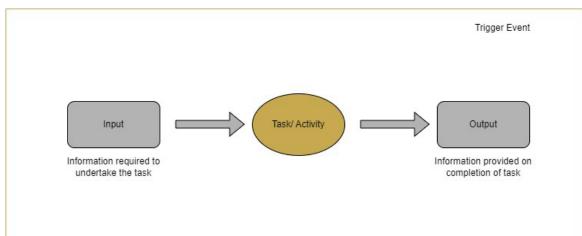
The subject matter experts and the end-users of the information to be defined.

Description:

It is important that information purposes are broken down or decomposed as much as possible so that each one can be associated with a specific task, activity or process.

Hints:

 Once the business requirements have been determined (Step 4), consider the context – the relevant trigger event⁵ - to help narrow down the information purposes.



Note that one activity's output may be another activity's input.

Key Questions:

- What decisions do you have to make, and what information do you use to inform them?
- What is the context what is the trigger event which requires that decision?

Clear All A

Apply Filters

For each information purpose, consider whether it
 could be broken down further. Look at this from both
 an information and a business perspective.

 For ease of understanding and cross-referencing later in the methodology, it is advisable to assign unique identifiers to each of the information purposes as illustrated in the demonstrator workbook below.

 It can be useful to apply an input and output approach, i.e. what input data is required to undertake the task/activity/process, and what output data/information will be provided from undertaking the task/activity/process?

⁵ Trigger event: A planned or unplanned event that changes an asset or its status during its life cycle, which results in <u>information exchange</u> (ISO 19650-1:2018 3.2.13).



CIA	METHODOLOGY REPORT	
SIA	WETHODOLOGI REPORT	

V

STEP 5: Fire Safety Information Demonstrator

Strategic Objective:	To run and operate a safe and compliant estate
Capability Grouping:	Safety
Capability area:	Fire Safety
Business Requirement:	Our estate shall include fire safety considerations within planning, design and delivery of asset
Information purpose:	Design Gateway Assurance against client Fire Safety requirements

Further examples include:

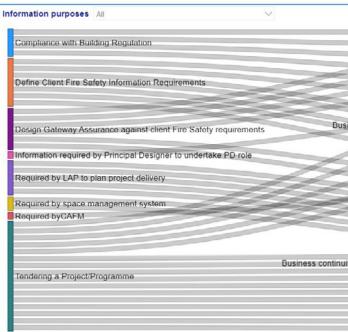
- Fire safety Information to support Planning permission
- Information required by Principal Designer •
- Compliance with Building Regulation •
- Information required by authority having jurisdiction •
- **Operations Fire Risk management** •
- Fire safety requirements for the space management • system
- Fire safety requirements for CAFM (Computer Aided Facilities Management) set up



0	1)	0 1 0	1	1	1	0	0	0	1	0	0	1	1	1	1	\cap	0	01	0	0	0	1	0	1	0	0
0	1 (0	0 00	0		0		0	0	0	0	1	0														
	Step	: 5	2																								
		-	Ţ																								
Information		mat	tion Pur	pose	(Act	ivity	Pro	cess.)																		
Purpose ID					(left																						
IP.0001	Defin		lient Fire	Safe	ty Inf	orma	tion	Doqui	irom	ante																	
IP.0002	Desi	gn G	Sateway /	Assur	ance	agai	nst c	lient I	Fire	Safety	/ requ	lirem	ents														
IP.0003	Com	pliar	nce with E	Buildi	ng Re	egula	tion																				
IP.0004	Fire	safe	ty Inform	ation	to su	ppor	t Pla	nning	pen	nissio	n																
IP.0005	Hand	love	r Assura	nce																							
IP.0006	In us	e FF	R manag	emen	t																						
IP.0007	Inform	mati	on requir	red by	y auth	nority	havi	ing ju	risdio	tion																	
		Information required by authority having jurisdiction Information required by Principal Designer to undertake PD role																									
IP.0008	Infor	mati	on requir	red by	y Prin	icipal	Des	igner	to ur	nderta	ake P	D rol	e														

Example from the Fire Safety Information Demonstrator Workbook:

Standard Info. Approach: Fire Safety Information Demonstrator > Run & operate a safe and compliant estate > Safety > Fire Safety



Ribbon diagram of the demonstrator

Step 5: Fire Safety Information Demonstrator



Org. information requirements

Fire alarm and detection specification
Fire suppression specification
Outline cause-and-effect matrix
Smoke control specification
Applicable fire safety legislation
Approval process within organization for fire safety
ss continuity, property protection, asset recovery requirements, level of resili
Fire safety management structure, roles and responsibilities Handover and soft landings process in organization for fire safety Operational fire safety requirements/procedures
Organization fire safety standards
Fire resistance Lift specification Existing building fire strategy Fire safety log book Fire safety manual Historic fire incidents Risk assessments Space identifier Zone identifier
Access routes, turning facilities and hardstanding property protection, asset recovery requirements, fevel of resilience statement Existing structural, external wall and site conditions/materials Firefighting facilities within building Legal constraints (site boundaries, shared escape routes, etc.) Location of external inlet points Nearest fire station Occupant characterization (type, population, distribution, etc.) Organisation handover and soft landings process for fire safety Planning constraints (heritage listings, etc.) Provision of hydrants near/on site

Step 6: Identify any functional requirements, plain language questions, key performance indicators

Aim:

To establish if there are any functional requirements⁶, plain language questions⁷ or key performance indicators (KPIs)⁸ which are associated with an information purpose.

Who:

The subject matter experts and the end-users of the information to be defined.

Description:

In some instances, the information purposes may require further breaking down by considering elements such as functional requirements associated with a client Fire Safety Requirement. Plain Language Questions may need to be answered to move from one gateway to another. There may be Key Performance Indicators (KPIs) which need to be measured for the relevant information purposes. However, it is possible that where information purposes have been sufficiently broken down, Step 6 may not be required. An example would be compliance with building regulation from a fire safety perspective.

Hints:

- Break down or decompose information purposes as far as possible.
- Before getting too concerned about this step, assess whether it is required.
- For example, KPIs outlined within a maintenance contract or PLQs that need to be answered to move from one gateway to another.

Key Questions:

- Does this information purpose have any functional requirements behind it?
- Are there any plain language questions which will need to be addressed for this information purpose across gateways?
- Are there any KPIs which need to be measured for this information purpose?

⁸ Key performance indicator: quantifiable measure that an organisation uses to gauge or compare performance in terms of meeting its strategic and operational objectives.

STEP 6: Fire Safety Information Demonstrator

Strategic Objective:	To run and operate a safe and co
Capability Grouping:	Safety
Capability area:	Fire Safety
Business Requirement:	Our estate shall include fire safety
Information purpose:	Design Gateway Assurance agair
Functional	Provide specification and drawin
Requirements:	

_	Step: 5		Step: 6
The second s	Information Purpose (Activity/Process)	Requirement ID	Functional requirement/ Plain language questions/Critical Success factors/KPIs/
IP.0002	Design Gateway Assurance against client Fire Safety requirements	R.0009	All fire doors to capture hardware
IP.0002	Design Gateway Assurance against client Fire Safety requirements	R.0012	All fire doors to include hold open device
IP.0002	Design Gateway Assurance against client Fire Safety requirements	R.0011	All fire doors to include vision panel details
IP.0002	Design Gateway Assurance against client Fire Safety requirements	R.0013	All fire doors to include access control
IP.0002	Design Gateway Assurance against client Fire Safety requirements	R.0014	All fire door performance to be captured

Example from the Fire Safety Information Demonstrator Workbook:

0	0	1 1	h	1	0	0 1	0_0	0	1	0	1	0	0 -
1	0	0								0		_0	

mpliant estate

y considerations within planning, design and delivery of asset nst client Fire Safety requirements ng for key fire safety assets



⁶ Functional requirement: a statement of how a system must behave. It defines what the system should do in order to meet the user's needs or expectations.
⁷ Plain language question: A request for information that is expressed in simple, easy to understand terms.

Step 7: Establish the target for which information is required and managed

Aim:

To establish the specific target for which information is required and managed.

Who:

The subject matter experts and the end-users of the information to be defined.

Description:

This is normally a quite straightforward step to progress. Previous steps have:

- broken down the information purpose so that it refers to a single activity, task, or process;
- identified the trigger event;
- identified any functional requirement, plain language question or KPI.

This step defines the specific target for which the information is required and will be (or is being) managed.

Hints:

 A functional requirement, plain language question or KPI may require information for e.g. a built asset, a space, component, landscape unit

Key Questions:

• What is the specific target for which this information is required and managed?

STEP 7: Fire Safety Information Demonstrator

$1 0^{-1} 0 0 100$
To run and operate a safe and co
Safety
Fire Safety
Our estate shall include fire safety
New Build
Design Gateway Assurance agair
Provide specification and drawin
Provide specification and drawin
Provide specification and drawin Fire Alarm
·
·
·
·

- Fire Suppression
- Smoke Control
- Lifts

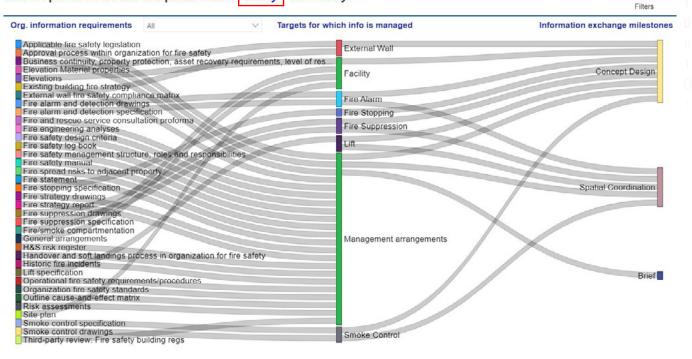
	Step: 5		Step:6	Step · 7
	Information Purpose (Activity/Process)	Requirement ID	Functional requirement/ Plain language questions/Critical Success factors/KPIs/	Target for which information is managed
IP.0002	Design Gateway Assurance against client Fire Safety requirements	R.0008	Provide specification and drawing for key fire safety assets	Fire Alarm
IP.0002	Design Gateway Assurance against client Fire Safety requirements	R.0008	Provide specification and drawing for key fire safety assets	Fire Suppression
IP.0002	Design Gateway Assurance against client Fire Safety requirements	R.0008	Provide specification and drawing for key fire safety assets	Smoke Control
IP.0002	Design Gateway Assurance against client Fire Safety requirements	R.0008	Provide specification and drawing for key fire safety assets	Lift
IP.0002	Design Gateway Assurance against client Fire Safety requirements	R.0015	Reaction to fire and fire resistance performance	Floor
IP.0002	Design Gateway Assurance against client Fire Safety requirements	R.0038	Zoning of Fire Alarms shall be clearly identified	Space
IP.0002	Design Gateway Assurance against client Fire Safety requirements	R.0038	Zoning of Fire Alarms shall be clearly identified	Zone
IP.0002	Design Gateway Assurance against client Fire Safety requirements	R.0019	Clearly identify internal Walls and its composition	Internal Walls

ompliant estate

y considerations within planning, design and delivery of asset

nst client Fire Safety requirements ng for key fire safety assets V

Standard Info. Approach: Fire Safety Information Demonstrator > Run & operate a safe and compliant estate > Safety > Fire Safety



Step 7: Establish the target for which information is required and managed

Ribbon diagram of the demonstrator

Step 8: Define information requirements

Aim:

To clearly define how the purpose of the information is served. Who:

As well as the subject matter experts and end-users, it is at this point that the methodology needs to focus on information management skills.

Description:

Once the target for which information is managed has been identified, it is important to define what information is required, when this information is first available, who is responsible for providing it and how this information will be delivered. **Hints:**

- It is not unusual for information requirements to serve numerous information purposes.
- Remember, however, to keep the link with each information purpose and the mapping back to the strategic objective it serves.
- End users can select the information requirements that are relevant to each appointment and feature it within an EIR⁹.
- Information requirements can also be filtered on an asset level.

 The format for delivering these information requirements often depends on enterprise system requirements, existing legacy approaches, etc.
 However, the aim in implementing the IMP¹⁰ as developed by the GIIG is to facilitate a consistent and standardised approach.

Key Questions:

- What information is required?
- How should the information be provided?
- When should the information be provided?
- Who is the information provided for?
- How does this information track back to its purpose and ultimately the strategic objective – has this been recorded?

⁹ Further information on developing information requirements may be found at ISO ¹⁹⁶⁵⁰ Guidance D: Developing information requirements (notion.site)
 ¹⁰ The IMP is a a process and technology suite that enables the secure specification, procurement, assurance, storage, presentation and exploitation of information, whether data or information is obtained internally or from third parties, to maximise value in the creation, maintenance, use and disposal of a client's assets. Refer to "GIIG IMP Guidance Document".

STEP 8: Fire Safety Information Demonstrator

Jen	Suac	וו	

Strategic Objective:	To run and operate a safe and compliant estate
Capability Grouping:	Safety
Capability area:	Fire Safety
Business Requirement:	Our estate shall include fire safety considerations within planning, design and delivery of asset
Trigger Event:	New Build
Information purpose:	Design Gateway Assurance against client Fire Safety requirements
Functional	Provide specification and drawing for key fire safety assets
Requirements:	

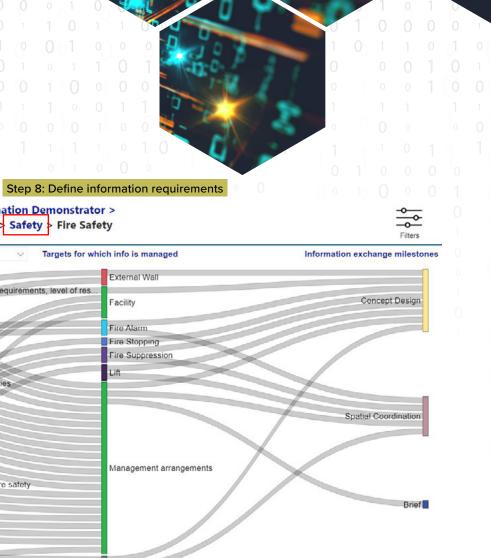
Target for which information is	Information Requirements	Data Type	Information Exchange	Information providor
Fire Alarm	Fire alarm and detection specification	Unstructured data	Detail Design	Lead appointed Party
Fire Suppression	Fire suppression specification	Unstructured data	Detail Design	Lead appointed Party
Smoke Control	Smoke control specification	Unstructured data	Detail Design	Lead appointed Party
Internal walls	Fire resistance	Structured data	Detail Design	Lead appointed Party
Zone	Zone Identifier	Geometrical	Detail Design	Lead appointed Party
Space	Space height	Structured data	Detail Design	Lead appointed Party
Lift	Lift specification	Unstructured data	Detail Design	Lead appointed Party

10	Step:6	Step : 7		Step:8	5		12	<u> </u>	
Requirement ID	Functional requirement/ Plain language questions/Critical Success factors/KPIs/_	Target för which information is	oir id	Org Information Requirements	Data Type	Format	First Information Exchange	Information provider	
-	· · · · · · · · · · · · · · · · · · ·	managed 🚽	-	· · · · · · · · · · · · · · · · · · ·	· ·	-	milestone 👻	*	
R.0008	Provide specification and drawing for key fire safely assets	Fire Alarm	CIR.00019	Fire alarm and detection specification	Unstructured Documentation	PDF Report	Spatial Coordination	LAP	
R.0008	Provide specification and drawing for key fire safety assets	Fire Suppression	CIR.00034	Fire suppression specification	Unstructured Documentation	PDF Report	Spatial Coordination	LAP	
R.0008	Provide specification and drawing for key fire safety assets	Smoke Control	CIR.00070	Smoke control specification	Unstructured Documentation	PDF Report	Spatial Coordination	LAP	
R 0008	Provide specification and drawing for key fire safety assets	Lift	CIR.00049	Lift specification	Unstructured Documentation	PDF Report	Spatial Coordination	LAP	
R.0015	Reaction to fire and fire resistance performance	Floor	OIR.00023	Fire resistance	Structured Data	Info Exchange	Spatial Coordination	LAP	
R.0038	Zoning of Fire Alarms shall be clearly identified	Space	OIR.00076	Space identifier	Structured Data	Info Exchange	Concept Design	LAP	
R.0038	Zoning of Fire Alarms shall be clearly identified	Space	CIR.00076	Space identifier	Structured Data	Info Exchange	Concept Design	LAP	
R.0038	Zoning of Fire Alarms shall be clearly identified	Zone	OIR.00080	Zone identifier	Geometrical	Native	Spatial Coordination	LAP	
R.0019	Clearly identify internal Walls and its composition	Internal Walls	OIR.00079	Wall type schedule	Unstructured Documentation	PDF Schedule	Detail Design	LAP	

Standard Info. Approach: Fire Safety Information Demonstrator > Run & operate a safe and compliant estate > Safety > Fire Safety

rg. information requirements	All	\sim	Targets for wh
Applicable fire safety legislation			
Approval process within organiz		atu	
Business continuity, property pr			ote level of rea
	otection, asset h	ecovery requireme	ents, level of res
Elevation Material properties	1		
Existing building fire strategy			
External wall fire safety complia			
Fire alarm and detection drawin		for the second	4
Fire alarm and detection drawn			
Fire and rescue service consult			
Fire engineering analyses	ation protonna		
Fire safety design criteria			
Fire safety log book	34		
Fire safety management structu	in roles and ros	enoneihilitine	
Fire safety manual	ire, roles and re:	sponsionnes	
Fire spread risks to adjacent pr	anortu		
Fire statement	openy	NI -	
Fire stopping specification	11/2/10		
Fire strategy drawings	12 11		
Fire strategy report	- Hi-		
Fire suppression drawings	1		
Fire suppression specification	4		
Fire/smoke compartmentation	11		
General arrangements			
H&S risk register			
Handover and soft landings pro	cess in organiza	tion for fire safety	
Historic fire incidents	and a sugarine	inon the ballety	
Lift specification			
Operational fire safety requirem	ents/procedures		
Organization fire safety standar			
Outline cause-and-effect matrix			
Risk assessments			
Site plan			
Smoke control specification			
Smoke control drawings			
Third-party review: Fire safety b	ouilding reas		

Ribbon diagram of the demonstrator



Smoke Control

Formatting the information requirements

Once the information requirement has been identified in Step 8, the next task is to describe how the detailed information requirements are to be delivered. At this stage it is necessary to draw on existing approaches provided by the IMP (Information Management Platform), Uniclass and IFC (Industry Foundation Classes). A high-level summary of the characteristics which should be considered is provided in the table below. The SIA methodology gives the means to tie each detailed information requirement back to its specific information purpose(s) and strategic objectives, whilst Uniclass, IFC and the IMP provide the means to deliver it.

Description of Information provided

Identification	_
Description	-
Classification	
Status	_
Location/Spatial	_
3D	 Define Information Type and Format
Dates and Times	
Relationships	_
Dimensions	_
Ratings	_
Assessment	
Stakeholders	
Financial	—

The information requested may be one of three generic types, each of which has distinct characteristics:

- Alphanumeric fields that may be dates, numbers, text, or selectable values and will typically be stored in a single database field;
- Documentation typically containing narrative text and supporting metadata stored in a particular format and intended to be read by individual(s); and

Geometric information relates to three dimensional objects or 2D spatial extents that will be stored, viewed, and manipulated in dedicated design or GIS (Geographic Information Systems) tools.

Appendix one: Definitions

For established definitions of terms used by the GIIG, please refer to the GIIG Glossary. For ease of reference, key terms relating to the SIA are briefly defined below.

Asset information requirements (AIR): Information requirements relating to managerial, commercial and technical aspects of asset operation – GIIG definition based on ISO 19650-1:2018 5.3: AIR set out managerial, commercial and technical aspects of producing asset information. **Business requirement:** describes why an activity, task or process is needed, whom it will benefit, when and where it will take place, and what standards will be used to evaluate it. **Capability area:** within a capability grouping, 'what' the department, group or functional team does to deliver, or contribute to delivery of, a particular strategic objective. **Capability grouping:** the department, group or functional team that delivers, or contributes to delivery of, a particular strategic objective.

Decomposition: breaking of a complex problem or system into smaller parts that are more manageable and easier to understand (ISO 9241-220:2019, 3.3)

Exchange information requirements (EIR): *Requirements relating to an appointment, concerning the production of project or asset information – GIIG definition based on ISO 19650-1:2018 3.3.6.*

Functional requirement: a statement of how a system must behave. It defines what the system should do in order to meet the user's needs or expectations.

Information delivery specification (IDS): A computerinterpretable document that defines the exchange information requirements of model based exchange. Information purpose(s): the purpose(s) for which data or information is created or for which that data or information exists – the process, activity or task it will help to address. **Information requirement:** the specification for what, when, how and for whom information is produced: ISO 19650-1 2018 3.3.2.

Key performance indicator: quantifiable measure that an organisation uses to gauge or compare performance in terms of meeting its strategic and operational objectives.

Organisational information requirement (OIR): The information needed by an organisation in order to satisfy its business objectives - GIIG definition based on ISO 19650-1:2018 3.3.3.

Plain language question: a request for information that is expressed in simple, easy to understand terms. Project information requirement (PIR): Information requirements in relation to the delivery of a defined project – as defined ISO 19650-1:2018 3.3.5.

Reference Data Library: a curated and securely accessible collection of reference data standards and data sets (externally or internally authored) required to be used for built environment information management throughout an organisation, including by its authorised external supplier partners.

Schema: an organisational pattern or structure describing categories of information and the relationships among them. SME: Subject matter expert: someone with the capability to ensure the facts and details in an area of expertise are valid. Trigger event: a planned or unplanned event that changes an asset or its status during its life cycle, which results in information exchange (ISO 19650-1:2018 3.2.13).

Use case: the description of an information use for a specific purpose by one or more actors and/or systems (ISO 29481-3)

V

Acknowledgements

The following have been consulted on, and contributed to, the development of this methodology. However, these organisations should not be seen to have endorsed the SIA methodology.

Atkins Babcock Bond Bryan Digital BSI Cohesive Defence Infrastructure Organisation (DIO) Electronic Code Commerce Management Association (ECCMA) **Environment Agency** Faithful+Gould GIIG Government Property Agency, Government Property OGP N G Bailey National Highways National Physical Laboratory Nima (formerly the UK BIM Alliance)/ buildingSMART Rolls Royce Scottish Futures Trust

