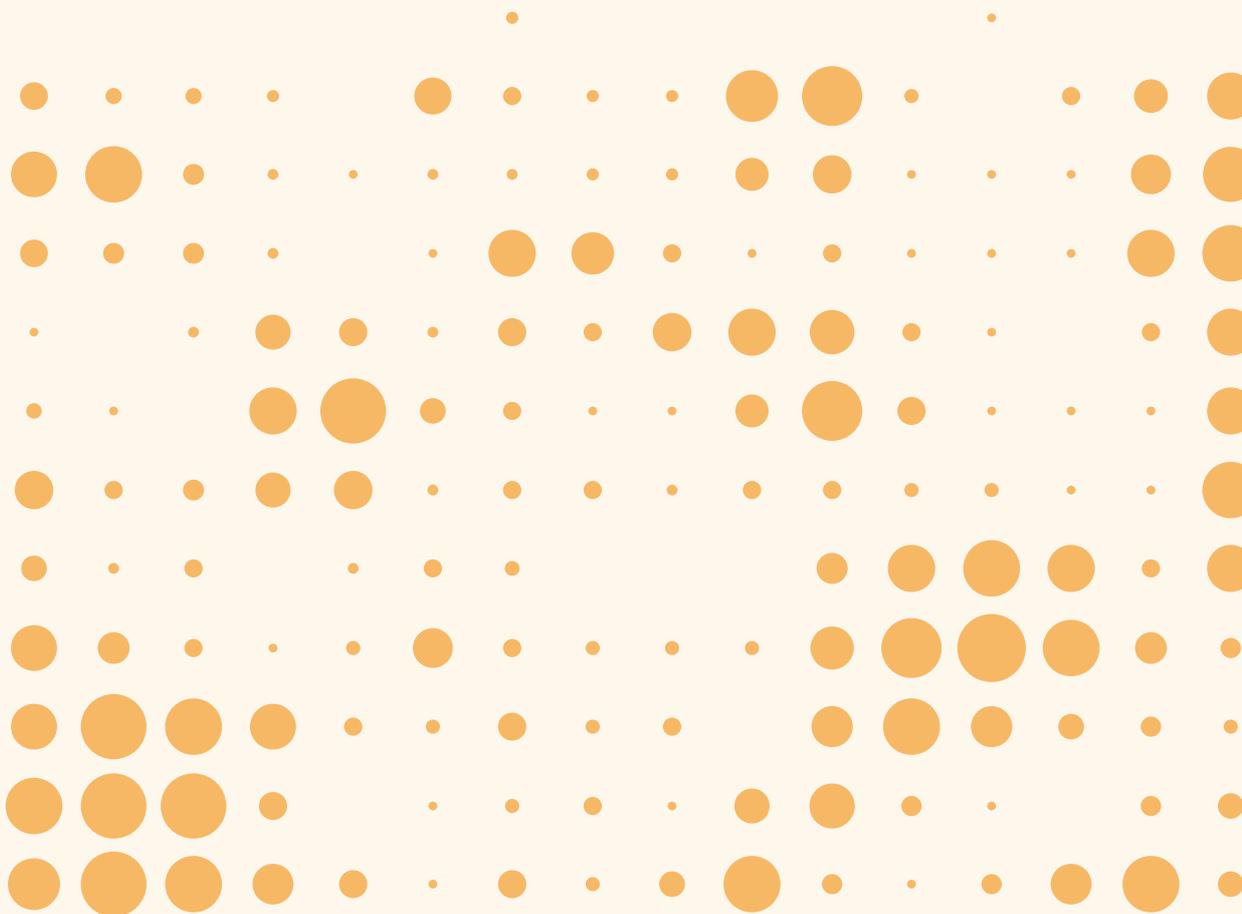


Information management according to BS EN ISO 19650

Guidance Part E

Tendering and appointments



Edition 2

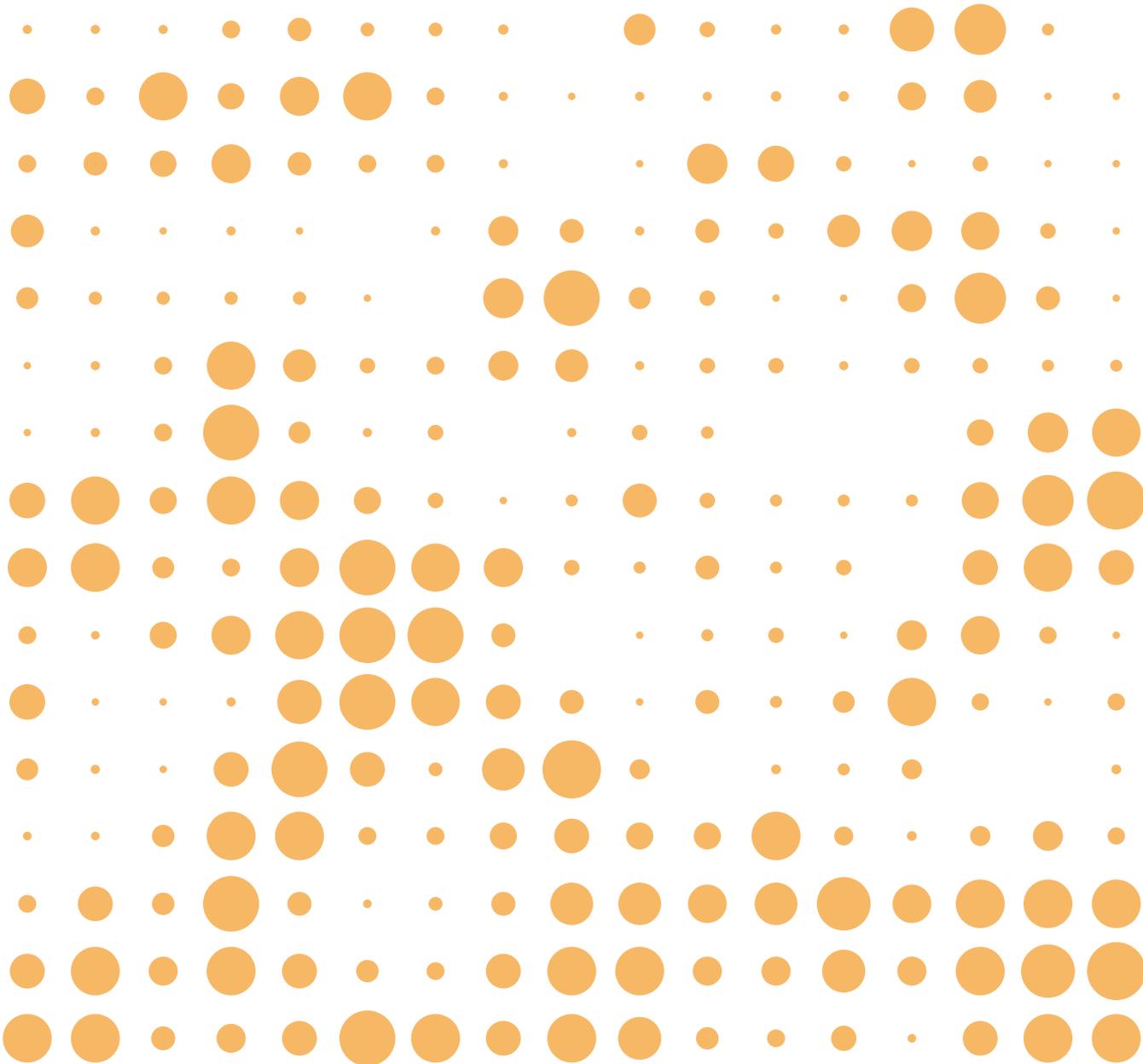
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Editions

Edition 1	September 2020	First release as Guidance E. Note this guidance text first appeared in ISO 19650 Part 2 guidance edition 3
Edition 2	February 2021	Update to include guidance about the UK BIM Framework Information Protocol Template and the information standard

Nothing in this guidance constitutes legal advice or gives rise to a solicitor/client relationship. Specialist legal advice should be taken in relation to specific circumstances.

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Any data or analysis from this guidance must be reported accurately and not used in a misleading context.

If using any information from this report, then its source and date of publication must be acknowledged.

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Message from the UK BIM Alliance Chair

Author: Dr Anne Kemp OBE
Chair - UK BIM Alliance



The UK BIM Framework provides the fundamental step towards digital transformation of the UK's built environment industry. The Framework is based on the ISO 19650 series, which first developed out of the UK's former BIM Level 2, but incorporates and anticipates global and future digital perspectives.

The UK BIM Framework embraces and assists in the implementation of the standards for managing information for the whole life of assets of the built environment. The Framework anticipates the potential for integration across portfolios. The Framework provides extensive Guidance which continues to be developed, including the addition of supplementary tools and materials to enable a firm basis for the evolving National Digital Twin Programme.

This Guidance has been developed to help industry to implement the concepts and principles of the ISO 19650 series upon which the UK BIM Framework is based. It has been continually updated to keep track of the publication of the different parts of ISO 19650, and to reflect lessons learnt as further experience is gained in its implementation.

The key parts of ISO 19650 are now all in place, allowing us to realize information management throughout the whole life of built environment assets. It provides for traditional ways of working entailing exchange of information via files, but also caters for shifts towards data exchange. The key is being specific about what information is required and how it is to be delivered. This needs forethought around what should

be the "end in mind" and consideration from an organizational, whole life perspective. This then informs the detailed requirements right down to appointment level.

The work behind developing this Guidance has been considerable. I would like to thank Sarah Davidson and David Churcher for their tireless commitment in continuing to bring this work together - I so enjoy working with you both. Secondly, I would like to thank the many authors who have contributed so generously to the writing of the Guidance - and been so patient in the criticisms and changes that have been required of them. Finally, I would like to thank the many people who have spared time to review and feedback on the Guidance - the Focus Groups in particular, but also those who have contacted us separately. Without this feedback we would not be able to incorporate the wide-ranging experience and testing which is occurring around the industry.

We welcome your continued feedback and shared experiences. You can provide this via guidancefeedback@ukbimframework.org.

Acknowledgments

This guidance represents the collaborative efforts of the following people and organizations

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About BS EN ISO 19650

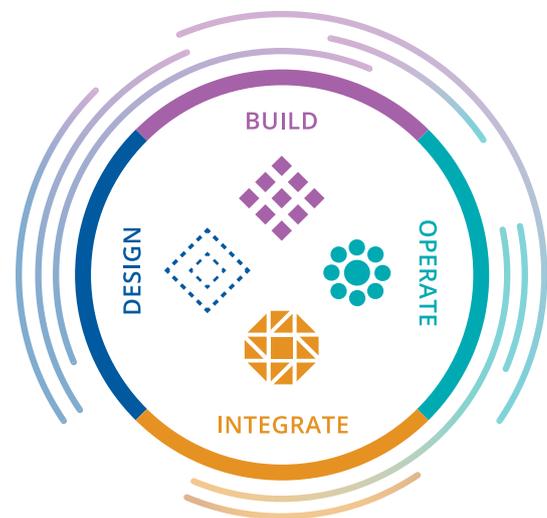
The BS EN ISO 19650 series of standards (herein after referred to as the ISO 19650 series) is an international standard of good practice. It defines information management principles and requirements within a broader context of digital transformation in the disciplines and sectors of the built environment (including construction and asset management industries). Its implementation in the UK is supported by UK National Forewords in ISO 19650 Parts 1 and 2, and a UK National Annex in ISO 19650 Part 2.

The ISO 19650 series replaces some of the existing British Standards and Publicly Available Specifications relating to information management using building information modelling (BIM). It is part of a landscape, or ecosystem, of national and international standards supporting information management processes and technical solutions. It considers all information whether it is a construction programme, a record of a meeting, a geometrical model or a contract administration certificate.

Building information modelling (BIM) plays a key part in the management of information because it provides a methodology that helps us to structure information so that technology can process it.

Structuring information using industry standards helps to improve interoperability. This means that information can be joined-up by both people and technology, which then enables us to extract more valuable knowledge from it. Using the same information structures throughout industry generates consistency, repetition and predictability. This brings real efficiency gains for businesses and provides the data architecture for the connected future..

Standards within the ISO 19650 series are available at www.bsigroup.com. Visit www.ukbimframework.org to see how the ISO 19650 standards plus other standards within the UK BIM Framework map to the design, build, operate and integrate process



About this guidance document (executive summary)

The guidance framework supports the UK implementation of the ISO 19650 series. This guidance document (guidance E) sits within an overall guidance framework as shown in Figure 1:

Guidance E is written to support the implementation of each published ISO 19650 standard.

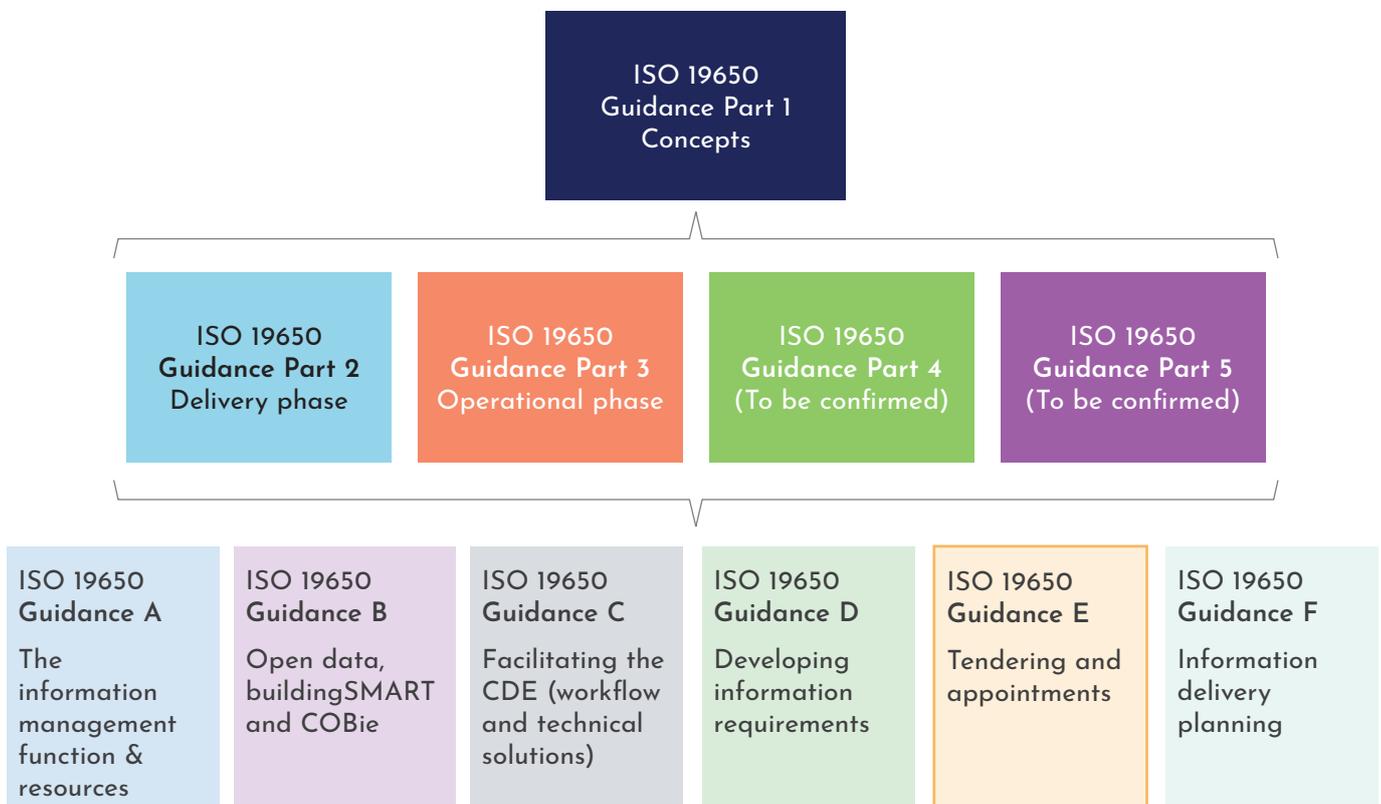


Figure 1: ISO 19650 guidance framework

Who is this guidance written for?

This guidance is for individuals and teams involved in the tendering and appointment process on behalf of the appointing party, lead appointed party and the appointed parties.

Who is this guidance of particular interest to and why?

This guidance is of interest to the appointing party, the lead appointed party and each of the appointed parties. It explains about the UK BIM Framework Information Protocol Template, the information standard and the BIM execution plan (BEP). This guidance will be updated in due course to consider other tender and appointment resources referred to in the ISO 19650 series.

Key takeaways

- The UK BIM Framework Information Protocol Template provides an example of what could be included in an information protocol to be used when conforming to ISO 19650-2 and/or ISO 19650-5.
- A properly completed information protocol should be included in all appointments (between separate legal entities) where there is a requirement to manage or produce information.
- Without a correctly incorporated information protocol there is no clear obligation on either party entering into an appointment to comply with ISO 19650-2 or ISO 19650-3.
- The purpose of an information standard is to provide the standards against which the information should be produced and subsequently maintained. It is established by the appointing party (client) and like an information protocol, should be included in all appointments where there is a requirement to manage or produce information.
- The BEP supports the tender, appointment and information delivery activities by providing evidence to the appointing party that the prospective delivery team can manage project information in line with the information requirements.
- The BEP presents one of the tools that the appointed delivery team will use to produce, manage and exchange project information during the appointment alongside other resources.
- In the process of finalizing the appointment for the lead appointed party, the BEP is revisited and updated to ensure it supports production of the detailed responsibility matrix and master information delivery plan.

As with all guidance supporting the UK BIM Framework, we invite comment and feedback on this guidance E at guidancefeedback@ukbimframework.org

Abbreviations and acronyms

This guidance includes a number of abbreviations and acronyms as set out in Table 1.

Table 1: Abbreviations and acronyms

Abbreviation or acronym	Term
BEP	BIM execution plan
BIM	Building information modelling
EIR	Exchange information requirements
MIDP	Master information delivery plan
TIDP	Task information delivery plan

1.0 About the information protocol

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1.1 Introduction

An information protocol is one of the resources that supports the implementation of information management using building information modelling (BIM). Both ISO 19650-2 and ISO 19650-3 require that the appointing party¹ produces an information protocol and that it forms part of tender and appointment documents. The UK BIM Framework Information Protocol Template is for use in compliance with ISO 19650-2 only, i.e. at delivery phase; an Information Protocol template for use in compliance with ISO 19650-3, (i.e. the maintenance and operational phase) is under review. ISO 19650-2 refers to the information protocol as the *project's information protocol* and ISO 19650-3 refers to it as the *asset information protocol*.

Although ISO 19650-2 and ISO 19650-3 address different parts of the asset life-cycle and use a different prefix for the information protocol, the purpose of it is the same; that is to set out the rights and obligations of the two parties entering into an appointment that requires the management or production of information.

ISO 19650-5 does not refer to an information protocol, however it does require that there is provision in all appointment documentation for the requirements set out in ISO 19650-5 clause 9.2. These obligations therefore do need to be considered.

The UK BIM Framework Information Protocol Template provides an example of what could be included in an information protocol to be used when conforming to ISO 19650-2 and/or ISO 19650-5 (as applicable) for projects and their appointments to which English law applies. It is not prescriptive but it provides a useful starting point for an Information Protocol. An Information Protocol Template to support conformance with ISO 19650-3 is under review and it is important to note that the Information Protocol Template as currently drafted does not conform with ISO 19650-3. This guidance however does refer to ISO 19650-3 where applicable to provide an overview of the approach taken by the Information Protocol Template.

Neither the UK BIM Framework Information Protocol Template nor this guidance amount to legal advice and you should ensure you always take appropriate professional advice to assist all parties to work in a way which reflects ISO 19650-2 and ISO 19650-5 (as applicable).

¹ The client in respect of ISO 19650-2 and asset owner, asset operator or facility manager for ISO 19650-3

1.2 Production of an information protocol: principles

An information protocol should be established by the appointing party at a project level (ISO 19650-2) or an asset/portfolio management level (for ISO 19650-3). It should be included in invitation to tender information² and then in appointment documentation for every third party (where the third party is a separate legal entity) that will manage or produce information as part of their activities within that appointment.

The relevant ISO 19650 clauses requiring these actions are set out in Table 2:

Table 2: ISO 19650 requirements for the information protocol:

Activity	19650-2 clause	19650-3 clause	Responsibility
Establish the information protocol	5.1.8	5.1.13	Appointing party
Include the information protocol in the invitation to tender or request for a service	5.2.4	5.2.5	Appointing party
Include the information protocol in lead appointed party's appointment documents	5.4.6	5.4.6	Appointing party
Include the information protocol in appointed party's appointment documents	5.4.7	5.4.7	Lead appointed party

² Or Request to provide a service information

1.3 Inclusion of an information protocol in appointments

As noted in the Introduction, ISO19650-2 and ISO 19650-3 envisage that an information protocol is included in completed appointment documents for each lead appointed party and their appointed parties. See Figure 2 for a delivery phase example.

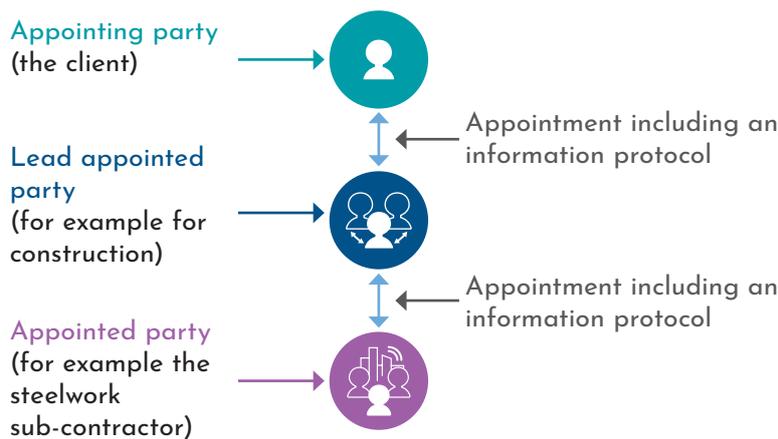


Figure 2: Simple party/appointment relationship; delivery phase example

For different and more complex appointment arrangements please refer to ISO 19650 guidance Parts 2 and 3.

The ISO 19650 series only refers to the tender package for the lead appointed party (in Figure 2, the tender package for the lead appointed party for construction). However, an information protocol will need to be included in any tender package (in Figure 2, the steelwork package) so that every party invited to submit a tender is aware of their obligations should they be appointed. Similarly, the ISO 19650 series does not specifically consider the tender or appointment of sub-parties, but they too will need to enter into an information protocol where they are managing or producing information as part of their scope of works.

1.4 Information Protocol Template » incorporated Information Protocol

The Information Protocol Template published by the UK BIM Framework supports delivery phase contracts and appointments that use ISO 19650-2 and ISO 19650-5. However, for the Information Protocol Template to become an appointment specific Information Protocol a number of activities are required. These activities are set out in Figure 3.

Before embarking on these activities it is critical to establish if the appointment is in respect of delivery phase activities (ISO 19650-2) in which case the Information Protocol Template can be used. If the appointment is in respect of operational phase activities (ISO 19650-3) then the Template should not be used; a Template compliant with ISO 19650-3 is currently under review.

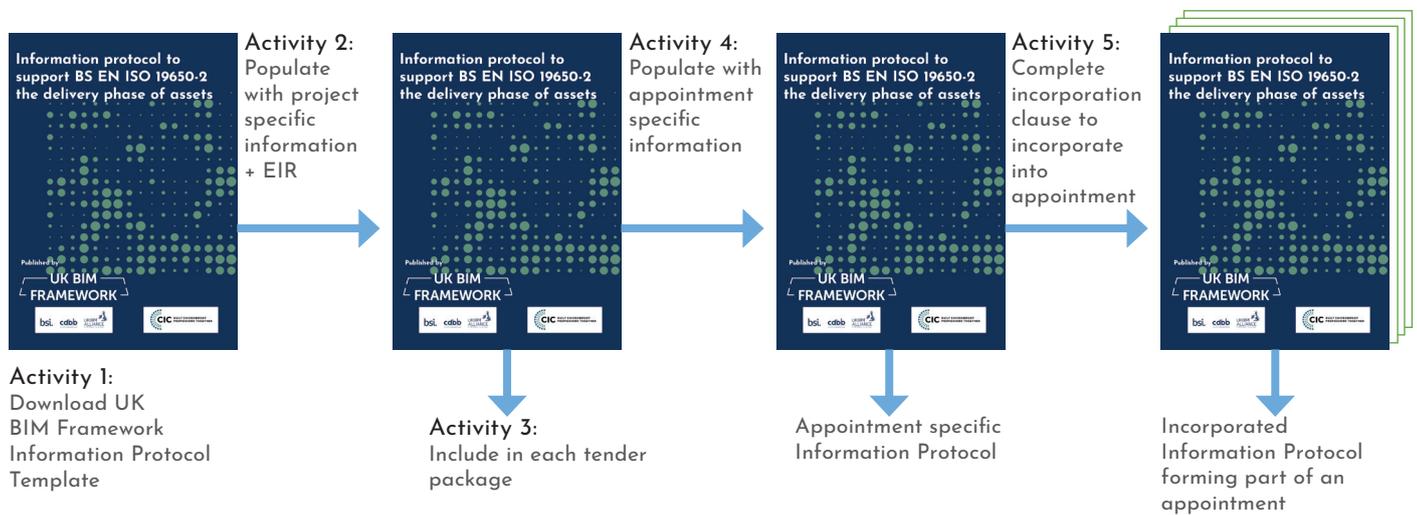


Figure 3: Activities needed to generate an incorporated information protocol

Once the Information Protocol Template has been accessed (**Activity 1**), its contents should be considered at a project level. Its Particulars should be populated with details originating with the appointor to identify project specific requirements such as the identity of the associated information standard, the information production methods and procedures and the exchange information requirements (EIR) (**Activity 2**). The Information Protocol can then be issued as part of a tender package (**Activity 3**).

During the process of confirming an appointment the Information Protocol Particulars should be completed to identify details originating with the appointee (such as the identity of the BIM Execution Plan (BEP) or task information delivery plan (TIDP)) - **Activity 4**.

For the Information Protocol to have contractual effect, an “incorporation clause” has to be included in each contract/ appointment into which it is to be incorporated. The completed protocol should also be included as part of the appointment documents (e.g. in a schedule) - **Activity 5**.

Activities 1 and 2 are carried out at a project related level. Activities 3, 4 and 5 are then carried out for every tender and appointment supporting that project as shown in Figure 4.

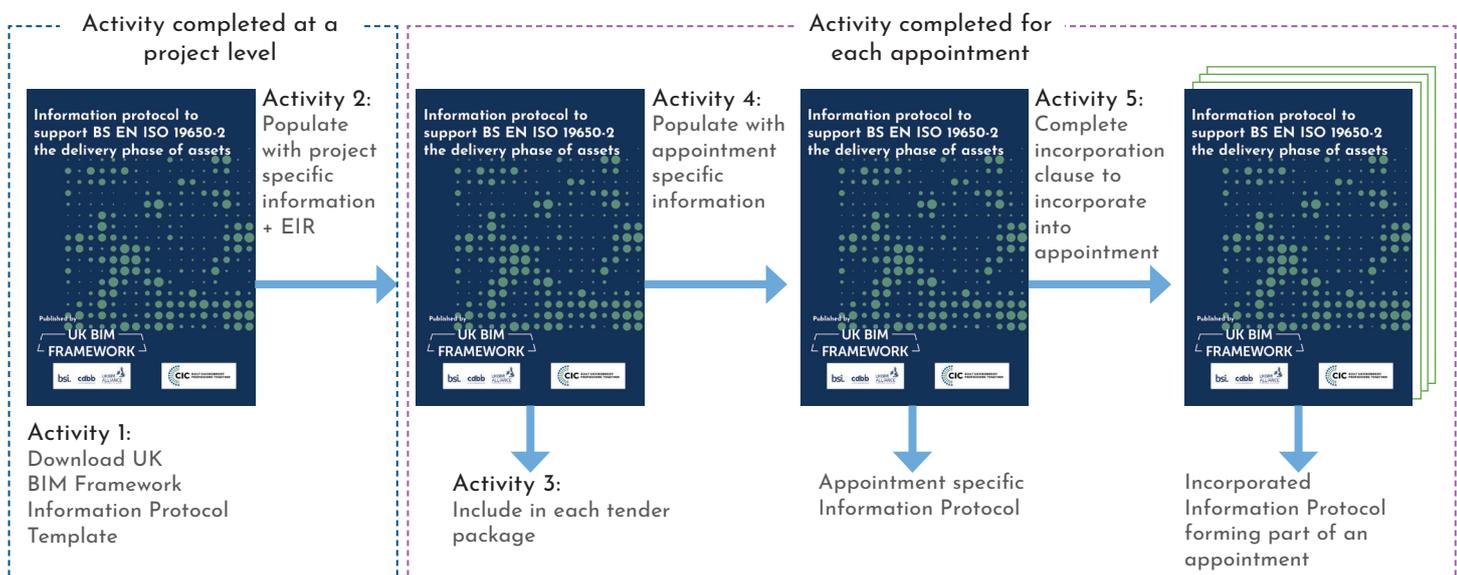


Figure 4: Activities needed to generate an incorporated information protocol at a project and appointment level

1.5 Incorporation into appointments

As noted in Activity 5, for the Information Protocol to have contractual effect, it is essential that an “incorporation clause” is included in each contract/appointment into which it is to be incorporated.

A suggested incorporation clause is as follows:

'The [Appointor] and the [Appointee] shall:

1. *comply with their respective obligations set out in the Protocol at Appendix [X] (“Protocol”);*
2. *have the benefit of any rights granted to them in the Protocol; and*
3. *have the benefit of any limitations or exclusions of their liability contained in the Protocol.*

The parties agree that, subject to clause 1.6 of the Protocol, this Appointment shall be amended as set out in the Protocol. In the event of conflict between this Appointment and the Protocol, the parties agree that the terms of the [Appointment/ Protocol] shall take precedence.'

It is suggested that the Information Protocol should be stated to take priority over the Appointment, for the Information Protocol to have its intended effect and to create consistency across the various Appointments that will exist for any single project related activity.

A copy of the Information Protocol with the appointment specific Information Particulars completed should then be appended/annexed to the Appointment in the place referred to in the incorporation clause.

If the Information Particulars are not completed some of the obligations, rights and processes in the intended Information Protocol may not be clear or binding.

See the Glossary in the [Information Protocol Template](#) for information which may assist in completing the Information Particulars and for ISO19650 terminology used in the Information Protocol Template.

The impact of the incorporation clause on the rest of the appointment and the relationship between the Information Protocol and the rest of the appointment should be considered for each appointment entered into and legal advice sought. For example, you may need to change the scope of services/works of the delivery team to be consistent with the information management approach.

1.6 Key considerations

1.6.1 Terminology

The ISO 19650 series uses the terms “appointing party”, “lead appointed party” and “appointed party”. The main distinction is that the lead appointed party is the appointed party appointed by the appointing party (see Figure 2).

The Information Protocol Template has been prepared to be relevant for the contracts/ appointments of all parties in the project team (ISO 19650-2); note that it is not drafted for use with contracts/appointments of the asset/facility management and operation team (ISO 19650-3) the preparation of an Information Protocol template for use with ISO19650-3 is under review. It uses the neutral terms:

- “Appointor” to refer to the party **doing the appointing** for each contract/ appointment, and
- “Appointee” to refer to the party **being appointed**.

It also contains some specific obligations for the Appointing Party and the Lead Appointed Party, which are only relevant if the Appointor or Appointee are one of these parties. For example:

An appointment may be between an Appointing Party (party A) a client, and a Lead Appointed (party B) for construction as shown in Figure 5. In this arrangement:

1. All the terms applying to the ‘Appointor’ and the ‘Appointing Party’ will apply to the Appointing Party (party A)
2. All the terms applying to the ‘Appointee’ and the ‘Lead Appointed Party’ will apply to the Lead Appointed Party (party B).

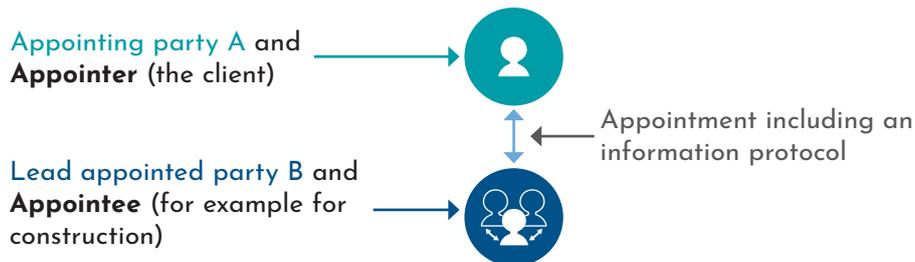


Figure 5: Appointment between an Appointing Party and a Lead Appointed Party

Alternatively, an appointment may be between a Lead Appointed Party (party A) and an Appointed Party (party B). In this arrangement:

1. All the terms applying to the 'Appointor' will apply to Party A
2. All the terms applying to the 'Appointee' will apply to Party B
3. The terms applying to an "Appointing Party" and "Lead Appointed Party" will not apply to either of them (although in this example, party A is a Lead Appointed Party this is not relevant to this particular appointment scenario)

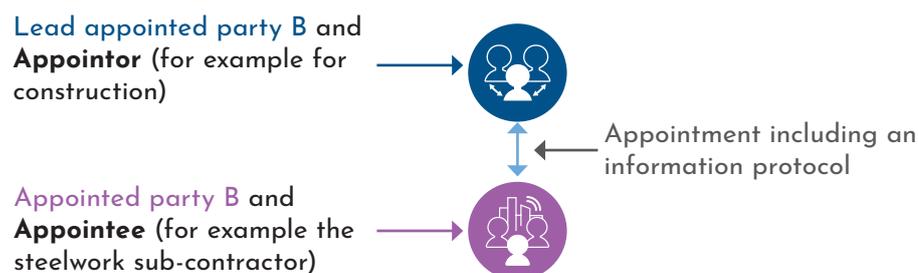


Figure 6: Appointment between a Lead Appointed Party and an Appointed Party

To summarize the terminology:

1. If you are a client/asset owner entering into an appointment then in terms of the protocol you are an **Appointor** and an **Appointing Party**
2. If you are a consultant or contractor entering into an appointment with a client/asset owner then you are an **Appointee** and a **Lead Appointed Party**
3. If you are a consultant or contractor appointing another party then you are an **Appointor** and references in the Information Protocol to **Appointing Party** and **Lead Appointed Party** are not applicable
4. If you are a consultant or contractor being appointed by another consultant or contractor then you are an **Appointee** and references in the Information Protocol to **Appointing Party** and **Lead Appointed Party** are not applicable.

1.6.2 Completion of the Information Protocol Template

The Information Protocol Template is drafted to be as easy to use as possible, with minimal need to delete irrelevant clauses or to produce, attach or complete additional documents. Relevant documents are instead listed in the Information Particulars.

The Information Protocol Template enables the key information management resources and documents to be identified in the Information Particulars on the front page. This gives certainty on where to refer for the parties' duties and rights, whilst still providing flexibility on the terms of the Appointment and these documents, some of which may continue to be updated, enabling compliance with ISO 19650-2.

As noted in Activity 5 the legal and contractual effect of the Information Protocol therefore depends upon the completion of the Information Particulars on the front page and its correct incorporation into appointments and contracts.

The Information Particulars lists **all documents** relevant to an appointment to ensure compliance with the requirements/ obligations of ISO 19650-2. Documents listed include, for example, the mobilization plan, the master information delivery plan (MIDP) and the TIDP. However not all of these documents will be relevant to each and every appointment, for example:

- Reference to the TIDP will not be relevant to any appointment between an appointing party (client) and a lead appointed party (such as a contractor)
- Reference to the mobilization plan and MIDP will not be relevant to any appointment between a lead appointed party (such as a contractor) and an appointed party (steelwork contractor)

Those documents that are not relevant to an appointment should be listed as "Not Applicable".

The Information Protocol Template has been prepared on the basis that it could be incorporated into any appointment at any level in the supply chain, whether the appointment is between:

- 1) An Appointing Party and a Lead Appointed Party (i.e. tier one contract);
- 2) A Lead Appointed Party and an Appointed Party (i.e. a sub-contract); and
- 3) An Appointed Party and a "Sub" Appointed Party (i.e. a sub-subcontract).

1.7 Important points to note

1. Without an information protocol there is no clear obligation on either party entering into an appointment to comply with ISO 19650-2 or ISO 19650-3, even if other ISO 19650 resources (such as an EIR) have been produced
2. If the Information Particulars of the Information Protocol are not properly completed, a number of the obligations, rights and processes under the Protocol will be unclear and the application of ISO 19650-2 to the appointment will be uncertain
3. If the Information Protocol is not incorporated in an appointment it will not have contractual effect for either party entering into the appointment
4. The Information Protocol will only be as effective as the documents referred to within it. For example, a comprehensively populated and properly incorporated Information Protocol will not compensate for an insubstantial information standard
5. Some of the documents listed in the Information Protocol are 'live' documents that are likely to be subject to change and update over time (for example, the BEP). This means that:
 - I. Parties should determine how to list the location of the relevant documents within the Information Particulars with their professional advisors, so the parties to the Protocol always refer to the latest version of the document and the impact of changes on rights to additional time and fees is mitigated, and
 - II. The implications of changes to the Parties' rights and obligations under the Appointment, arising because of a change in the content of a live document, including the variation or change control mechanism, must be considered carefully
6. A properly completed Information Protocol should be included in all appointments (between separate legal entities) where there is a requirement to manage or produce information, no matter how deep or complex the delivery team is. A break in this chain will create a risk that the lead appointed party will not be able to fulfil their obligations under the Information Protocol and will therefore be in breach of their contract. This may be of consequence not just to the lead appointed party's delivery team but to the wider project or asset-related activities
7. If Parties are at maintenance and operational phase (ISO19650-3), a separate Information Protocol conforming to ISO19650-3 will be required to govern the relationships between the parties.

2.0 About the information standard

Author: Dan Rossiter
British Standards Institution

2.1 Introduction

To satisfy the requirements of both **ISO 19650-2** and **ISO 19650-3** an information standard is established by an appointing party to outline the standards to be followed when managing information in relation to a project and/or asset/portfolio (see ISO 19650-2 clause 5.1.4 and ISO 19650-3 clause 5.1.6 respectively).

While the information standard is established at the project and/or asset/portfolio level, it is important that it reflects, and is mutually consistent with, internal organizational standards, methods and procedures. This is to ensure that the delivered information is useable throughout the asset's lifecycle and consistent with other information relating to an asset.

The information standard is one of several resources which are compiled together to form the appointing party's tender information (see ISO 19650-2, 5.2.4 and ISO 19650-3, 5.2.5 plus the resource map in [ISO 19650 Guidance A](#)).

A unique characteristic of the information standard is the ability for a lead appointed party to suggest additions or amendments as part of their tender response. If applicable, these should be articulated as a contract negotiation so that any additions or amendments are made known to all bidders to ensure a fair and transparent tendering process.

Typically read in conjunction with the information production methods and procedures, the information standard is used during the production of information to support the generation, approval, authorization, and acceptance of information (see ISO 19650-2, 5.6 and ISO 19650-3, 5.6).

2.2 Purpose of an information standard

The purpose of an information standard is to provide the standards against which information shall be produced and subsequently maintained. Depending on the context, this may be at an organizational level, managing the information across its whole portfolio of assets, or it may be at a project level. To achieve this, the information standard is established at the project and/or asset/portfolio level so that all appointed delivery teams deliver project or asset information consistently with each other, regardless of their contractual relationships. This is because while the information standard is produced once, it will not only form part of the appointment documentation for each lead appointed party and their respective sub-consultants and sub-contractors, but will also be the basis for rigorous and consistent maintenance of information through the whole life of the asset/portfolio in question.

For example: Delivery teams which need to work sequentially when servicing an asset or concurrently when delivering a large/complex project.

2.3 Developing an information standard

Regardless as to whether it is being produced to support the delivery of a project or the servicing of an asset, an information standard is developed in the same manner.

As a technical resource, an information standard should include information relating to the information standard in the form of a document header or a title block.

BS EN ISO 7200 provides a schedule of fields to be included when producing technical documentation such as: Title, Author and Approver.

2.4 Format of the information standard

While ISO 19650-2 and ISO 19650-3 do not specify a set structure for an information standard, **PD ISO/TS 12911** (Framework for building information modelling (BIM) guidance) provides a formalized structure which could be adopted.

As a minimum, a clause-based structure should be adopted to enable anyone from the delivery team to reference specific elements of the information standard with ease.

2.5 Contents of the information standard

The information standard should include the standards to be considered when structuring, classifying, and exchanging information. In determining these standards, the appointing party should consider any asset-related, or organizational-related activities that information may be required for throughout the asset's lifecycle.

For example: An information standard relating to the delivery phase of an asset should consider relevant standards relating to the use of the information during an asset's operational phase.

In addition, any standards identified during the establishment of the security management plan should also be considered for inclusion within the information standard (refer to ISO 19650-5 clause 7 and 9.2).

The content within the information standard may be the standard itself or in the form of references to an external source, such as a British Standard or an online tool.

For example: The national annex to ISO 19650-2 recommends that the permitted values for information container ID convention, status codes and revision codes are recorded within the information standard. The information standard should therefore set out a project identifier, record originator codes and other specific codes needed to generate an information container unique ID. Examples of other content that might be included in an information standard include:

- The level of information need framework
- Which classification system(s) should be adopted and where
- Requirements for the designation of internal and external spaces.

2.6 Amendments and additions to the information standard

When responding to an invitation to tender, a prospective lead appointed party (such as a consultant or a contractor) is able to suggest amendments and additions to the information standard.

While the original resource may capture the standards that support an appointing party and any previously appointed lead appointed parties, it is vital that any standards that are clearly justified and needed to support any incoming lead appointed parties are also captured so that they are considered and enacted during the generation, approval, authorization, and acceptance of information (see ISO 19650-2, 5.6 and ISO 19650-3, 5.6).

Note: While additions may be welcomed without issue, amendments will need to be considered carefully. This is because these amendments may impact on other delivery teams who are producing and managing information concurrently as well as potentially conflicting with information produced based on the pre-amended information standard, resulting in inconsistent asset information.

3.0 About the information production methods and procedures

Guidance covering the information production methods and procedures is in development and will be released in the next edition.

4.0 About the BIM execution plan

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4.1 Introduction

To satisfy the requirements of ISO 19650-2, a BIM execution plan (BEP) must be provided by a prospective lead appointed party in their tender response (see ISO 19650-2 clause 5.3.2). In accordance with ISO 19650-2 the BEP is one of several resources developed by the lead appointed party on behalf of the delivery team to convey the information management approach.

Delivery team capability and capacity, mobilization planning, risk assessment and information delivery planning are dealt with as separate resources.

How all this information is presented to the appointing party is up to the lead appointed party, unless the appointing party has given any firm instructions.

The resulting BEP is a succinct resource that is supplemented by additional resources to be used by the prospective delivery team if appointed.

Readers familiar with PAS 1192-2 will understand that the BEP under that standard was a single document that included all resources mentioned above.

4.2 Purposes of the BIM execution plan

The BEP has two different purposes in supporting the tender, appointment and information delivery activities:

1. To provide **evidence** to the appointing party that the prospective delivery team can manage project information in line with any information requirements provided to them. This is referred to in ISO 19650-2 as the “(pre-appointment) BEP”
2. To provide a **delivery tool** that the appointed delivery team will use to produce, manage and exchange project information during the appointment alongside other resources.

Consequently, although there is only one BEP for each delivery team there may be two early versions of it. The first version being the (pre-appointment) BEP and the second version offering an update so that it can fulfil its purposes as an appointment resource and one of the delivery team’s tools for information management.

4.3 Commencing the development of a BIM execution plan

In developing the (pre-appointment) BEP, the prospective lead appointed party should be aware of three different scenarios:

1. A template is provided by the appointing party as a shared resource, see ISO 19650-2 clause 5.1.6 a) to support the tender and appointment process
2. There is no template BEP provided but the appointing party indicates the contents required to support its evaluation criteria - see ISO 19650-2 clause 5.2.3
3. The appointing party is silent concerning the BEP and therefore the prospective lead appointed party has to respond with a (pre-appointment) BEP in accordance with ISO 19650-2 clause 5.3.2.

The appointing party may choose to adopt scenario 1 or 2 so that they can better assess and compare prospective delivery teams' proposals.

It is recognized that the scenario may exist where the appointing party does not issue exchange information requirements (EIR) or other information management resources thereby contravening ISO 19650. In this scenario it is advised that the prospective lead appointed party considers developing a BEP which anticipates the EIR (or other information management resources) to support a positive outcome for the project and appointing party.

It should be emphasized to the appointing party that in doing so the project is not following ISO 19650 and that action should be taken to resolve this in collaboration with the delivery team.

4.3.1 (Pre-appointment) BEP process

A simplified illustration of the (pre-appointment) BEP is included as part of Figure 7



Figure 7: Simplified process leading up to the (pre-appointment) BIM execution plan

Refer to the ISO 19650-2 resources map for the overall perspective. See [ISO 19650 Guidance Part A](#)

Note: The same lead appointed party may be appointed multiple times throughout the life of a project (for example, in a two-stage design and build scenario or where a single organization is appointed for differing scopes of services). In any of these scenarios, the (pre-appointment) BEP activity will be repeated but this should be proportionate to the changes necessary to reflect the different nature of the appointments.

4.3.2 Format of the (pre-appointment) BEP

ISO 19650-2 is not prescriptive about the format of the BEP and therefore it could take the form of, for example, a single word-based document or an interactive tool. The same document or tool could include several other tender response resources alongside the (pre-appointment) BEP.

As noted earlier, the format of the BEP may be pre-determined by the appointing party. This may come in the form of a template which would be an example of a shared resource (ISO 19650-2 5.1.6) or as a list of headings to structure the BEP.

If no requirement has been set by the appointing party, then it is up to the prospective lead appointed party to determine the format of the BEP, ideally in collaboration with their delivery team.

4.3.3 Contents of the (pre-appointment) BEP

ISO 19650-2 recommends the contents of the (pre-appointment) BEP in clause 5.3.2 and sets out the key considerations in establishing the delivery team's BEP. This is done using the term 'shall consider'. This is in contrast to ISO 19650-2 clause 5.4.1 which stipulates the contents of the BEP contained in the appointment itself using the instruction 'shall'.

ISO 19650-2 clause 5.3.2 recommends that the (pre-appointment) BEP covers seven different key information management considerations. These are as follows:

- A) Provide the details of individuals undertaking the information management function. This is to offer assurance that the function will be fulfilled through adequately competent people. It also encourages the early consideration as to how this function will be resourced. More detailed insight into the information management function is set out in ISO 19650 Guidance Part A.
- B) Proposed information delivery strategy. ISO 19650- 2 Clause 5.3.2 b) sets out what this should contain:
 - The approach to meeting the EIR.
 - The prospective lead appointed party should consider and work through each information requirement and respond to the level of information need, acceptance criteria and delivery dates set by the appointing party in accordance with ISO 19650-2 clause 5.2.1
 - Objectives and goals to produce collaborative information.
 - Organizational structure and commercial relationships of the delivery team.
 - The split of the delivery team into task teams.
 - The relationship between appointed parties and task teams might be a straightforward one-to- one, or might be more complicated (multiple appointed parties forming a multi-disciplinary task team, or one appointed party providing several task teams) refer to Figure 2 in ISO 19650 Guidance Part 2 for project delivery.

C) The proposed federation strategy to be adopted by the delivery team. See [ISO 19650 Guidance Part 1: Concepts section 6.3.1](#) for details.

D) The delivery team's high-level responsibility matrix.

This matrix will list all appropriate elements within the information model and stipulate a responsible party and the deliverable required for each element. For example, an element of the information model might be the cost model, the deliverables associated with this element would be order of cost estimates and cost plans and the responsible party would be the prospective quantity surveyor.

E) Proposed additions/amendments to the project's information production methods and procedures (if there are any).

The (pre-appointment) BEP gives an opportunity for the delivery team to propose any additional methods and procedures that they require or would recommend over and above what is specified by Page the appointing party.

For example, the appointing party may not have considered information production methods and procedures for the capture and delivery of existing asset information for a refurbishment project. The (pre-appointment) BEP may set out proposed methods for this including security protocols.

F) Proposed additions/amendments to the project's information standard (if there are any).

The (pre-appointment) BEP gives an opportunity for the delivery team to propose any addition to the information standard that they require or would recommend over and above what is specified by the appointing party.

This could be, for example, a room and space referencing system.

G) Proposed schedule of software, hardware and IT infrastructure.

For example identifying a schedule listing the software versions, hardware and IT to be used by the delivery team. This is important to enable collaboration and interaction between the task teams, delivery teams and the appointing party. This is a fundamental consideration for wider interoperability.

4.4 The delivery team's BIM execution plan

In the process of finalizing the appointment for the lead appointed party, the (pre-appointment) BEP is revisited and updated as required. This might involve the review of how the content is presented relating to the project's information standard, the project's information production methods and procedures and the proposed federation strategy.

Any agreed alterations to the project's information standard should now be reflected in that project wide resource. The federation strategy should be aligned with the agreed project's information production methods and procedures and developed as necessary, to ensure it supports production of the detailed responsibility matrix and master information delivery plan.

There may be other delivery team information production methods and procedures which are consistent with but go beyond the project wide information production methods and procedures which need to be set out in the delivery team's BEP.

The BEP should be updated to confirm:

- The responsibility and the names of individuals who will undertake the information management function
- The schedule of software, hardware and IT infrastructure that the delivery team will use
- The delivery team's information delivery strategy (as required)
- The delivery team's high-level responsibility matrix (as required).

Note that these changes may be necessary for several reasons, such as time elapsed to complete the tendering process or contract type, or changes to the arrangement of task teams in the delivery team, or changes to the appointed parties.

This delivery team's BEP must be confirmed between:

- The appointing party and the lead appointed party (ISO 19650-2 clause 5.4.6), and
- The lead appointed party and each of the appointed parties (ISO 19650-2 clause 5.4.7).

As the BEP is a formal appointment resource it will need to be subject to a change management process throughout the duration of the appointment. For example, as more appointed parties join the delivery team.

See the ISO 19650-2 resources map contained in [ISO 19650 Guidance A](#) to assist in the development of the structure of a BEP.

4.5 Checklist of actions/key points to consider

- ✓ The BEP is developed by the lead appointed party on behalf of its delivery team and ideally in collaboration with its delivery team.
- ✓ If you are a lead appointed party, develop the (pre-appointment) BEP as part of your tender response.
- ✓ If you are a (prospective) appointed party brought on board during the lead appointed party's tender period, contribute your ideas and knowledge to the development of the (pre-appointment) BEP.
- ✓ Consider the points a) to g) in ISO 19650-2 clause 5.3.2. Additional considerations for your BEP can be included - these might be stipulated by the appointing party, the nature of the project or by your own corporate policies and procedures.
- ✓ Review and confirm the BEP during the period between your appointment being indicated by the appointing party and the contract being signed and ensure that it meets the requirements of ISO 19650-2 clause 5.4.1.
- ✓ Keep your delivery team's BEP up to date throughout your appointment, using change management processes.

5.0 Summary

ISO 19650 Guidance E has provided further insight into the [UK BIM Framework Information Protocol Template](#), the information standard and the BIM execution plan. These are all resources that form part of the tender and appointment documents.

It should be referred to by practitioners and those implementing the ISO 19650 series across a project, within an appointment or within an organization.

Please note that the ISO 19650 series is still new, albeit based on former UK standards. As experience of implementing the ISO 19650 series is gained over the coming months and years, this guidance will be updated to reflect both this experience and any comments/ feedback received from users. It will also be updated to include guidance about additional resources such as the information production methods and procedures.

Please do let us have your feedback by emailing us at guidancefeedback@ukbimframework.org.

Please also remember that standards within the ISO 19650 series are available at www.bsigroup.com.

Visit www.ukbimframework.org to see how the ISO 19650 standards plus other standards within the UK BIM Framework map to the design, build, operate and integrate process.

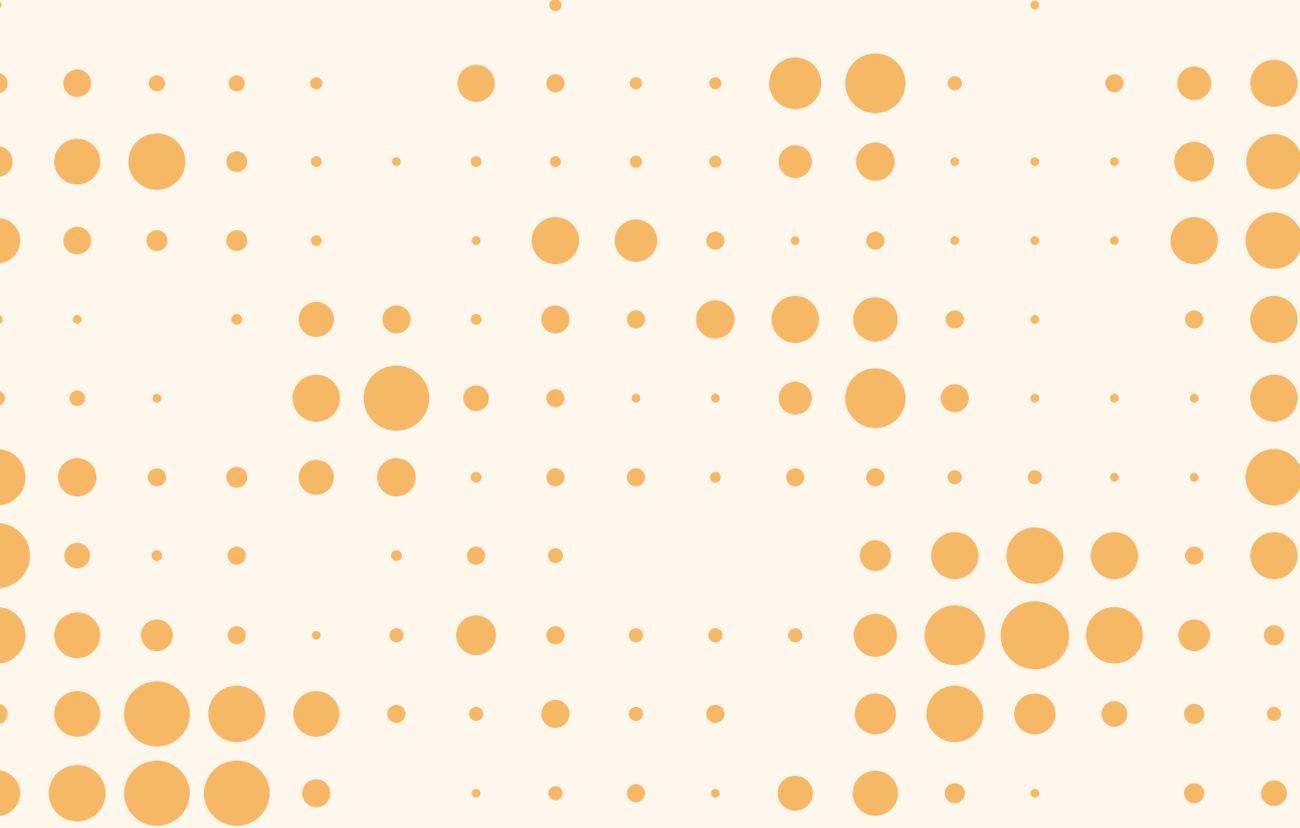
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