



# ISO 19650 documents and specifications

Planning, detailing and organisation the Information Management with BIM

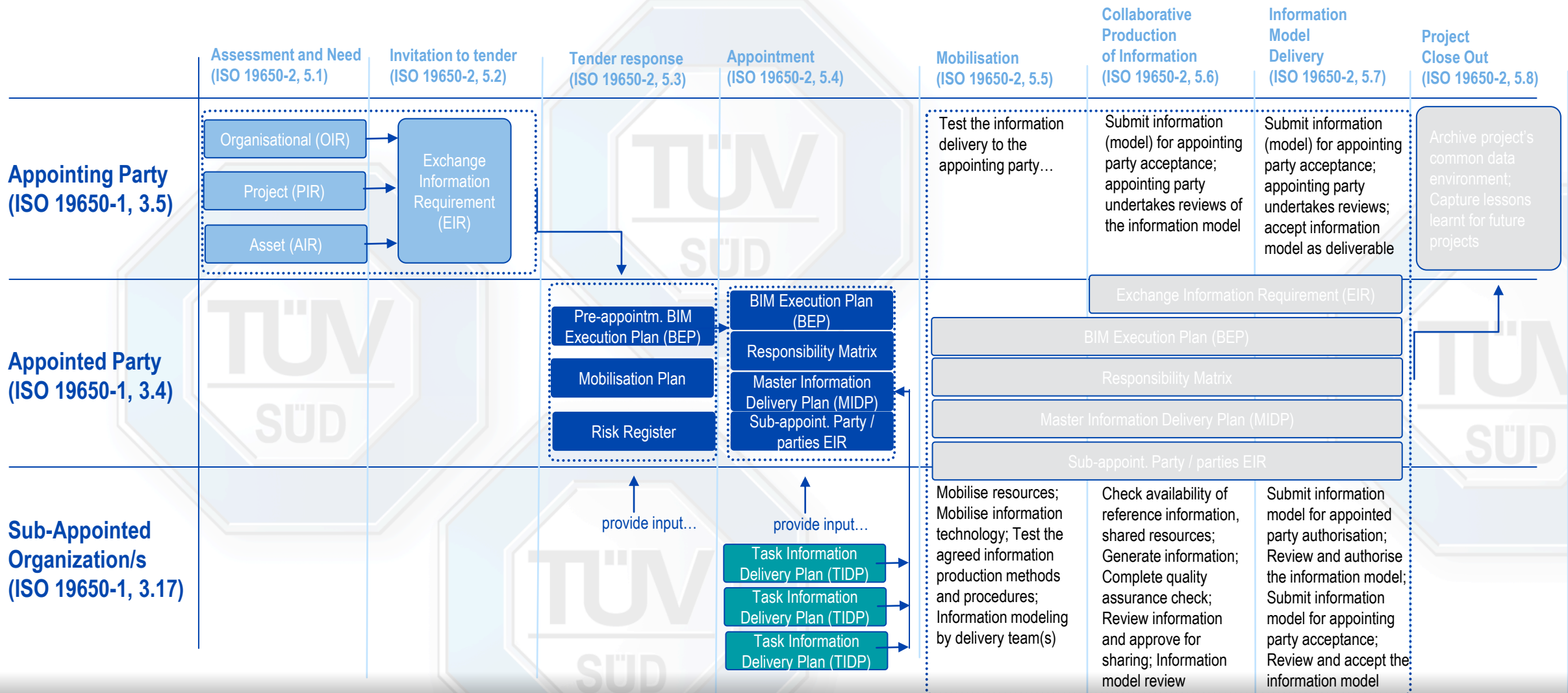


**Mehr Wert.  
Mehr Vertrauen.**

**Add value.  
Inspire trust.**

# Overview: ISO 19650 documents aligned with roles

- XXX Documents / specs to be developed and provided by the **appointing party** -> „Project Team“ by ISO 19650-2; clause 4.2 Information management roles
- XXX Documents / specs to be developed and provided by the **appointed party** -> „Delivery Team“ / „Task Team“ by ISO 19650-2; clause 4.2 Information management roles
- XXX Documents / specs to be developed and provided by the **sub appointed party** -> „Delivery Team“ / „Task Team“ by ISO 19650-2; clause 4.2 Information management roles



# Exchange Information Requirements (EIR) ISO 19650 and DIN EN 17412 (LOIN)

Define the relevant information requirements, including

- the appointing party's **organisational information requirements** (OIR)
- the appointing party's **asset information requirements** (AIR)
- the appointing party's **project information requirements** (PIR)

Establish the **level of definition** required to meet each information requirement, containing

- the level of detail (LoD)
- the level of information (LoI)

Create the **acceptance criteria for each information requirement**, including

- the project information standard
- the information production methods and procedures
- the use of reference information or shared resources provided by the appointing party

Establish the **schedules and dates** according to the project's information delivery milestones and appointing party's key decision points, that each requirement needs to be met, embracing

- the time needed by the appointing party to review and accept information
- the appointing party's internal assurance processes

**Formulate the supporting information** that the appointed party might need, in order to fully understand or evaluate each information requirement or its acceptance criteria, in consideration of...

- existing asset information
- shared resources
- supporting documents, e.g. guidelines
- references to relevant international, national or industry standards





# BIM Execution Plan (BEP)

Provide the details of individuals undertaking the information management function and encourage the early consideration as to how this function will be resourced; mention proposed names and CVs of the individuals who will undertake each of the delivery team's project information management roles.

Integrating / reflecting to the [delivery team's information delivery strategy](#):

- delivery team's approach to meeting the EIR from appointing party
- objectives / goals for collaboration and BIModelling
- delivery team's organisational structure and commercial relationships
- delivery team's composition, in the form of one or more task teams

Explain the proposed [volume strategy](#) and [federation strategy](#) to be adopted by the delivery team

Integrate the [delivery team's responsibility matrix](#), containing

- core set of information deliverables, in relation to each element of the information model
- responsibility to produce each deliverable to a specific task team

Explain the delivery team's proposed information production methods and procedures, incl. capture of existing asset information, generation, review, approval and authorisation of information, security and distribution of information, delivery of information to the appointing party

Highlight [amendments to the project information standard](#), containing

- exchange of information between task teams
- distribution of information to external parties
- delivery of information to the appointing party

Integrate a complete [list of software](#) (including the versions or types), hardware and IT infrastructure the delivery team intend to use

Integrating / reflecting to the [project's information standard provided by the appointing party](#), especially if

- project-specific expansion of the standard status codes and revision system has been defined
- a classification system has been defined in the project's information standard
- information container ID codification standard has been defined in the project information standard

# Risk Register (RR)



Risk review assumptions the delivery team/s has / have made towards the appointing party's EIR, including

- existence, gaps and adequacy of the EIR received, and the steps needed to address these concerns / issues
- impact of roles and responsibilities for information management and how the appointing party EIR is being seized

Check that the appointing party's project information [delivery milestones and delivery strategy](#) are / can be met, especially...

- whether an appropriate CDE has been established and if its capability to deliver the information delivery strategy are enough
- that relevant documents have been agreed by the delivery team and appointing party, and that those are shared to all task teams
- that the level of information need (LOIN) is defined and agreed for each information exchange requirement
- that the information model federation strategy and its configuration within the CDE is appropriate for the individual project
- whether the mobilisation phase includes all configured production templates and that those are tested and confirmed

- Risk review the [contents of the project information protocol](#), especially

- considering whether the rights and responsibilities in the protocol are acceptable from legal and commercial perspectives
- check for existence, gaps and adequacy of the protocol addressing elements listed in the appointing party's project's information protocol

Ensure [achieving / executing the proposed information delivery strategy](#), and

- consider / risk review the milestones, whether there is sufficient capability and capacity to meet the delivery milestones

- Check for the [successful adoption of the proposed information production methods and procedures](#), including

- - considering project specific procurement risks, such as procurement lead times of telecommunications for project sites

Check for the [inclusion \(or non-inclusion\) of the proposed amendments to the project information standard](#), and

- consider the proposed methods and procedures against existing organisation/ internal procedures
- consider the impact of any deviations from existing processes
- consider whether the proposed methods and procedures are feasible and achievable.
- assess whether the appointment / invitation to tender manages any changes fittingly, including information management documentation
- consider whether compliance criteria are measurable or not

Review the [mobilisation of the delivery team](#) to achieve the obligatory capability and capacity, especially

- assess the impact of communication of the mobilisation plan
- ensure consideration for lead times is included in mobilising the CDE, the internet connections, the system configurations etc.

# Risk Register (RR) – example content table

**Attention: The information related / based risks shall be unified into a single risk register; the BEP should not feature a supplementary risk register.**

## Assumptions chapter

1. Check about gaps, plausibility and “fulfilment ability” of the EIR which the lead appointed party received, plus the measures needed to address these concerns;
2. Assess the influence of the roles / responsibilities for the information management and how the appointing party information requirements are being captured by the lead appointed party;

## Milestones chapter

1. Consider whether the lead appointed party has sufficient capabilities / capacities to comply with the delivery milestones;
2. Reflect project specific procurement risks; e.g. procurement lead times of telecommunications for project sites etc.

## Information Delivery Strategy chapter

1. Validate whether a proper CDE has been established and if its capability to deliver the information delivery strategy are present or not (from your perspective);
2. Check if all relevant documentation has been agreed and developed by the delivery team and appointing party and communicated to all task teams as suitable;
3. Check if the LOIN is defined and agreed for each information exchange requirement and if that is suitable from the lead appointed party perspective;
4. Validate if there is any impact of the information model federation strategy and its configuration within the CDE;
5. Consider if the mobilization phase includes all arranged production templates and if those have been tested and confirmed.

## Information Protocol chapter

1. Reflect whether the rights and responsibilities in the protocol are adequate from legal and commercial views;
2. Analyse / highlight gaps, existence and appropriateness of the protocol addressing elements listed in the appointing party's Project's information protocol.

## Methods, Procedures and Information Standards chapter

1. Benchmark and risk review the proposed Information Management approaches and procedures against existing organization/ internal procedures;
2. Explain the impact of deviations towards existing processes;
3. Reflect if the suggested methods and procedures are feasible and achievable;
4. Assess if the appointment and/or invitation to tender cause any changes and if so, if those are appropriately (from your perspective), e.g. also document any ongoing amendment to the appointment information management;
5. Check if the compliance requirements are measurable.

## Mobilisation, capability and capacity chapter

1. Assess the influence of communication of the mobilisation plan and explain if the mobilisation plan can be executed or not;
2. Take into account / benchmark the given / proposed lead times for mobilisation, for example:
  - a. CDE procurement and CDE testing
  - b. Internet connections / Internet service provision
  - c. System configuration
  - d. ...
3. Check and highlight if there is any impact of a negative outcome from testing information production methods and explain, where and how those may appear.



# Mobilisation Plan (MP)



Document [testing and recording](#) the proposed information production methods and procedures

Describe [testing the information exchanges between task teams](#), ensuring export file formats are consistent and coherent

Describe testing the [information delivery to the appointing party](#)

Mention information on [configuring and testing the delivery team's CDE and its connectivity to the project CDE](#), especially

- testing that the delivery team's CDE performs as expected and that all appointed parties and task teams can access the CDE appropriately
- testing that the project CDE solution/s perform/s as expected and that all key parties can access it as required, and that the project CDE/s support/s all CDE workflows planned and described
- testing if / how information containers may manually or automatically exchange between solutions depending on workflow to reduce review waiting times

Attest [information on procuring, implementing, configuring and testing software, hardware and IT infrastructure](#); ensuring site office ICT infrastructure, including network lines, are in place to allow site staff to access information

Document the [development of additional shared resources](#) to be used by the delivery team

Describe [information on developing and delivering education to delivery team members](#), e.g. educating the delivery team on the project goals and the journey to get there, and training measures of the delivery team on how to use mandatory solutions being provided by the appointing party

Describe [information on developing and delivering training \(skills\) to the delivery team members](#), e.g. confirm the producing of information management plans or guides to help users operate the CDE

Describe on how [recruiting](#) of additional members of the delivery team takes / took place to achieve the required capacity, e.g. recruiting of members that play a vital role in the management of information including document/design managers and consultants

Mention [information on supporting individuals and organisations](#) that join the delivery team during the appointment, especially on how individuals and organizations that join the delivery team during the appointment are supported

# Responsibility Matrix (RM)



Identify **what information is to be produced**, e.g. the detailed responsibility matrix may identify, based on the information container breakdown structure, what information about doors, chillers and ducts should be provided, and the RM shall also quantify how much information is required

Identify **when the information is to be shared and delivered**, e.g. the detailed responsibility matrix has to identify which delivery milestone this information is needed by; also highlighting the dependency and workflow identified by the delivery team

Identify **which task team is responsible for its production**, mentioned the dedicated project entity (Task Team) with name/s

Provide information about the **information delivery milestones**

Provide information about the **information production methods and procedures**

Provide information about the **volume(s) allocated to each task team**

Provide information about the **dependencies on the information production process**

Example of an information management responsibility matrix

Table 2 — Information management responsibility matrix

ID	Task	Appointing Party	Project Sponsor	Project Information Manager	Project Delivery Manager	Appointed Party	Delivery Team Lead	Task Team Manager	Task Information Manager	Task Interface Manager	Information Author(s)
<b>Key</b>											
	R Responsible for undertaking activity										
	A Accountable for activity completion										
	C Consulted during activity										
	I Informed following activity completion										
<b>4.1 Assessment and need (Start of delivery phase)</b>											
4.1.1	Appoint project information management roles	A	R	I	I						
4.1.2	Establish the project's information requirements	A	R	C	C						
4.1.3	Establish the project's information delivery milestones	A	C	I	R						
4.1.4	Establish the project information standard	A	C	R	I						
4.1.5	Establish the project's information production methods and procedures	A	C	R	C						
4.1.6	Establish the project's reference information and shared resources	A	C	R	I						
4.1.7	Establish the project's common data environment	A	C	R	I						
4.1.8	Establish the project's information protocol	A	C	R	C						
<b>4.2 Invitation to tender</b>											
4.2.1	Establish the appointing party's exchange information requirements	A	R	C	C						
4.2.2	Assemble reference information and shared resources	A	C	R	I						
4.2.3	Establish tender response requirements and evaluation criteria	A	R	C	C						
4.2.4	Compile invitation to tender information	A	R	I	I						
<b>4.3 Tender response</b>											
4.3.1	Appoint delivery team information management roles			I	I	A	R	I	I	I	
4.3.2	Establish the delivery team's (pre-appointment) BIM execution plan			C	C	A	R	C	C	C	
4.3.3	Assess each task team capability and capacity			I	I	A	I	R	C	C	
4.3.4	Establish the delivery team's capability and capacity			C	C	A	R	I	I	I	
4.3.5	Establish the delivery team's mobilization plan			C	C	A	R	C	C	C	

ISO 19650-2; Annex A:  
Example of an information management responsibility matrix



# Task Information Delivery Plan (TIDP)

## Attention:

1. Each task team shall establish, and maintain throughout its appointment, a task information delivery plan (TIDP).
2. In the latest ISO 19650-2 issue, there is no prescribed format for the TIDP, too. Thus, the format may be a GANTT chart, a spreadsheet or any other easy text or table-based document

Document the project's information delivery milestones, including the time / schedules the appointed party will need to review and authorize the information model

Describe the task team's responsibilities within the detailed responsibility matrix

Document the appointed party's information requirements

Specify the availability of shared resources within the delivery team

Confirm the time the task team will need to generate, coordinate, review and approve information

Develop and document, for each container, the

- name and title
- predecessors or dependencies
- Level of Information Need (LOIN)
- (estimated) production duration
- information author responsible for its production
- delivery milestones

List the containers utilised for the information model review of the delivery team, in accordance with the agreed information production methods and procedures

List the deliverables that shall / will be checked and authorised during the information model review by the appointed party

List the deliverables that shall / will be reviewed and accepted during the information model review by the appointing party

# Master Information Delivery Plan (MIDP)

## Attention:

1. The MIDP is the compilation of all the task information delivery plans (TIDPs) within a delivery team
2. In the latest ISO 19650-2 issue, there is no minimum list of contents for an MIDP, too

- Consider the **assigned responsibilities within the detailed responsibility matrix**; document / write down a primary plan describing when data and information is to be produced and by whom

- Consider the information predecessors or **dependencies on information** between task teams

- Consider the **time the appointed party** will need to review and authorize the information model

- Consider the **time the appointing party** will need to review and accept the information model

Document the **baseline of the deliverables** and dates within the MIDP

**Inform each task team** and notify if any changes are required to the TIDP

**Inform the appointing party** of any risks or issues which could impact on the project's information delivery milestones

List the **containers utilized for the Information Model Review of the Delivery Team**, in accordance with the agreed information production methods and procedures

List the **deliverables that shall / will be checked and authorized** during the information model review by the appointed party

List the **deliverables that shall / will be reviewed and accepted** during the information model review by the appointing party

