Data Driven Decision Making for NHSScotland Boards

Typically, lots of information is exchanged during an NHS construction or maintenance project and, given the potential for even more information to be exchanged through BIM, it is important therefore for NHS Boards to identify their minimum information requirements. Health Facilities Scotland has created a template set of plain language questions (PLQs) that, as a client, should be considered at each stage of a project. Key decisions such as whether to proceed to the next SCIM work stage or not will be made based upon the answers to these questions. This process will enable reliable information exchanges through a common data environment to support NHS Board decision making. Ultimately the use of PLQS and defined information exchanges will support a data driven decision making process as illustrated in diagram number 1.

The British Standards Institution (BSI) defines PLQs as:

Plain Language Questions: questions asked of the supply chain by the employer to inform decision-making at key stages of an asset life cycle or project [from PAS 1192-3]

request for information that is expressed in simple, easy to understand terms [from BS 8536-1]

Plain Language Questions are essential a way for a Board to request information from their supply team in a simple understandable manner.

Setting these PLQs are a key part of the information requirements process ensuring data is only produced when needed and ensures that digital data has clear purpose and aligned with the NHS Board's organisational and project needs such as SCIM.

These PLQS and associated information requirements will be set out in the project Employers Information Requirements (EIRs) and shall provide enough information to answer the" Plain Language Questions" required at a particular stage, at an appropriate level of definition.

Once the project's plan of work has been defined such as RIBA 2013 the key decision points should be agreed, essentially "when do I need information to support my decision gateways". Normally these exchanges occur in advance of the end of a stage to allow the client decision making to occur and any necessary re-work such as refining design to meet area targets if the decision that the current target has not been made. It also important to articulate the purpose of these gateways for example, to a agree at target price.

Having defined the employer's decision points it is now necessary to articulate the PLQs themselves, this is often best done in a workshop environment and should also include those from a facilities management perspective who may want related PLQs such as "can I effectively and safely maintain this facility based in the current design solution?" The HFS template should be used as a starting point as this already embraces the PLQs that support the SCIM process however the project unique questions should also be articulated.

Once the PLQs have been expressed it is then necessary to set-out the information requirements and format that will support the decision making. This maybe one piece of information or several depending on the complexity of the question from a model a report or COBie data.

Next it is important to define who will be responsible for the creation and management of the information deliverables e.g. lead-designer, main-contractor etc.

It is important to consider the amount of graphical detail and information that will be required to support the decision. This is referred to as Level of Definition, which is the collective term for Level of detail (Graphical) and Level of Information (Non graphical).

Typically information will grow throughout the project stages. At an early stage details of the heating strategy and high level volume strategy may be required for space allocation, while at handover, details of the installed heating systems including performance data and warranty information will be required to understand and answer operational questions.

Once this has all been completed the information requirements associated with the PLQs can be articulated in the EIR. Whilst it is not necessary to describe to the supply chain the PLQ, only the requirements best practice would suggest that these are included in a simple matrix.

Finally once the information exchange occurs and the information has been validated and verified the project team should have a mechanism in place to review the data and interpret same to support the decision making.