The buildingSMART International Process: Addendum 3 - Project Delivery Governance

REQUIREMENTS, RESPONSIBILITIES, ROLES, AND FUNDING DOCUMENTATION FOR EFFORTS OF THE BSI PROCESS

Version release record

Version	Author	Date	Notes
7.0	Richard Kelly	2019 10 25	Initial addendum 3 to v7 of the bSI Process
7.1	Jeffrey Ouellette, Richard Kelly, Jon Proctor	2020 07 07	Reformatting to match other documentation styles
7.2	Richard Kelly, Jeffrey Ouellette	2020 08 20	Update of the Activity Proposal and Detailed Project Plan templates, including instructions on how to complete
7.3	Richard Kelly	2022 08 30	• Addition of the Use Case Management Service use process and reference to the Service Tools document • Reinforcement of the governance levels and funding arrangements • Addition of Production Standard status • Addition of reference to ISO standard coordination.

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Introduction

The main body of **the bSI Process** document describes how the work undertaken by the buildingSMART community is coordinated and delivered. These are initiatives to enhance the built asset industry and in broad terms the outputs respond to requirements related to making aspects of whole life value decision making better.

The bSI Process spans the three core Programs of User, Solutions & Standards and Compliance. This Addendum document is primarily concerned with describing how Activities pass through the *bSI Process* as a *Project* within the *Solutions & Standards Program*.

This document explains how *bSI Projects* are conducted and is a primary reference for Room Steering Committees, Project Managers and Project Teams to use as a guide for the planning and delivery of their specific projects.

The output of a *Project* is usually either a *bSI Standard* or a *bSI Technical Report.* This will generally be determined in the early stage project plan.

bSI Projects are expected to be established on a rigorous and robust basis. It is the responsibility of the sponsoring Room to ensure that the proposals are adequately developed, supported and resourced.

At the early stage, a requirement will be put forward to bSI as an *Activity Proposal. Activity Proposals* (which become *Detailed Project Plans* after successful Standards Committee consultation) may be put forward by Chapters, Rooms, or Third Parties. Proposals will have been discussed and ratified within the most relevant existing Room before proceeding.

The maturity phases of a bSI Project when it is delivering a new international standard are;

Standard Proposal

> *Working Draft Standard*

>> *Candidate Standard*

>> *Production Standard*

>> *Final Standard*

For *Technical Reports*, the maturity phases have slightly different names but the project process to deliver them is the same. The difference in the phases between the delivery of a *bSI Standard* and a *bSI Technical Report* are illustrated below in *Figure 3.i* and *Figure 3.ii.*

All bSI projects must follow *the bSI Process*. The level of output is dependent on the scope and deliverables identified and agreed at the outset. This is covered in more detail in the main body of the bSI Process document.

It is anticipated that activities will normally be supported by a focused Working Group who have identified a specific need. This Working Group prepares the Activity Proposal and submits it to the bSI Management Office for allocation to the appropriate Room. If the proposal does progress to being a full Project then the Working Group members will probably become part of the Project Team in some capacity.

bSI Services

bSI provides services to support the community and to support projects. Two of these are the Use Case Management Service and the buildingSMART Data Dictionary.

Projects are expected to engage with the buildingSMART Data Dictionary (bSDD) and Use Case Management Service (UCM)

Figure 1 & Figure 2 below show where the Services typically fit within the bSI Process and a project progression. This should be used for indication only. Actual project outputs will be determined in the Detailed Project plans.
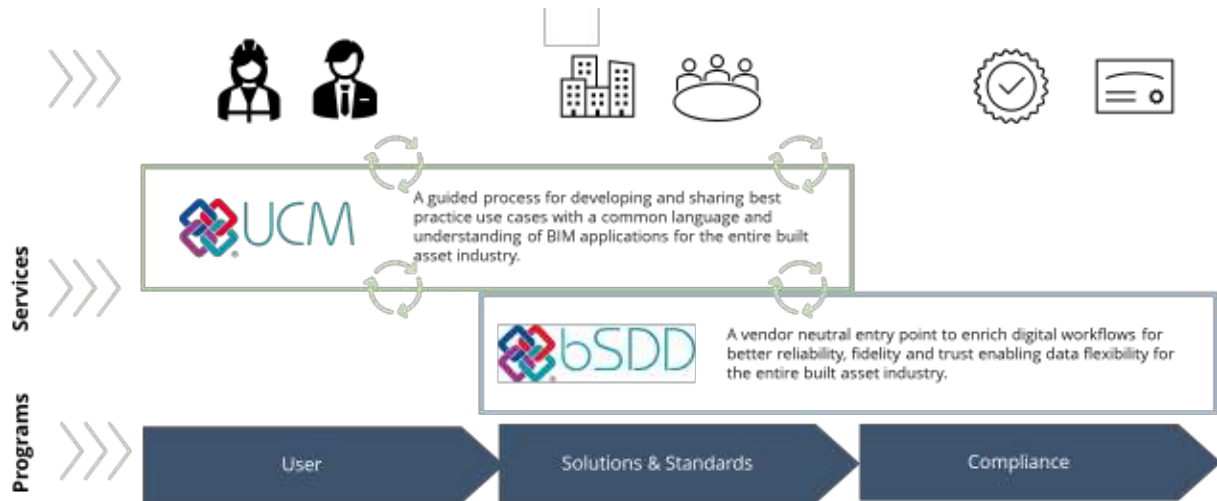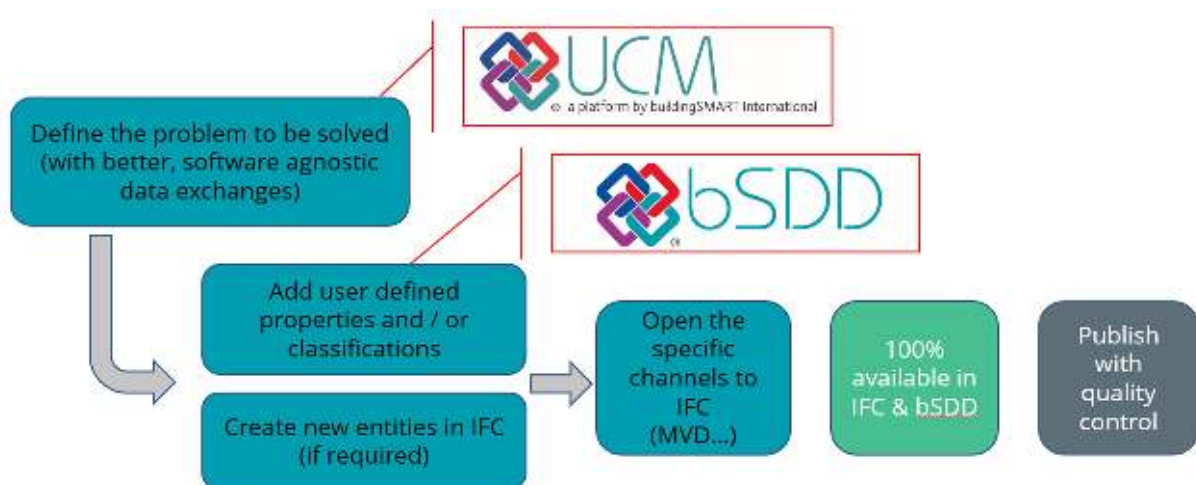

Figure 1: bSI Services

Figure 2. Typical progress of a bSI Project (incorporating the use of bSI services)

1   Project Requirements

The requirements and responsibilities of standards projects during the three project stages are set out below and illustrated in Figure 3.

1.1   Stage 1 Initiation

During the initiation stage the working group must work on preparing and defining the need for a project to take place, and plan for how it should be realised. This is a two stage process.

First submit an Activity Proposal. This is used for consultation with the Standards Committee and serves as outreach to the whole membership community to let them know the proposal exists.

The Activity Proposal can come to the Room in one of two ways – 1) a direct approach or 2) from a review of the bSI Use Case Management Service (UCMS), ucm.buildingsmart.org

After successful consultation, the Working Group submits a Detailed Project Plan. This will now include details of the Project Team (Project Manager, Technical Leader, Expert Panel members), milestones, funding sources (work-in-kind or cash contribution).

The Detailed Project Plan is submitted to the Standards Committee for vote with the maturity description 'Standard Proposal'.

For a Standard Proposal to be eligible for endorsement to become a Working Draft Standard the following must be achieved:

- Clearly developed and articulated user needs and project outcome requirements supported by an appropriate room or group.

- Proposed solution, work plan and deliverable

- Project schedule, and expected timeline for completion

- Project cost plan

- Project participants and supporters (normally this shall show evidence of support to give confidence that the project is likely to be completed, implemented in real life and be of value to users).

- Project resourcing plan including identification of sponsors providing funds or ready to commit in-kind resources and any volunteer work commitments

- Project consortium formally established and Project Manager appointed.

- Coordination and support working group input requirements identified.

- Determine whether the standard would benefit from being ultimately published by ISO and if so initiate the joint process as described below (Section 3).

- The Expert Review requirements should be agreed with the SCE and an appropriate project specific Expert Panel identified team identified. The Project Manager is responsible for setting up Expert Panel meetings at appropriate times during the project delivery schedule.

- Expert Panels must comprise: a chairperson with no affiliation to the project proponents, two eligible chapter representatives and two eligible member representatives at least being able to review the proposal from the viewpoint of end users, commercial interests, technical architecture and implementation. The SCE must be satisfied that all necessary aspects will receive appropriate expert oversight.

- Outputs from the Expert Panels will be submitted to the Standards Committee Technical Executive (SCTE) for their endorsement and the SCTE will advise the SCE.

- Well documented project plans which shall summarize how these requirements are to be met.

- Project formally committed to bSI Process

- Project and all parties commit to bSI intellectual property rules.

A consortium agreement between all the sponsoring parties and bSI is then signed. This can be in the form of a letter, Memorandum of Understanding, or a full Consortium Agreement, dependant on project size and complexity. This will include details of the amount of contribution from each party, both work-in-kind and cash.

Project sponsors are also required to be bSI members.

1.2 Stage 2 Solution Development

Project consortiums under the leadership of the Project Manager, are responsible for the execution of the projects to achieve the time, cost and outcome expectations.

During the development stage the project shall report to the Room Project Steering Committee (see terms of reference in Section 5) on a regular basis by submitting a dashboard where a summary, plus a status on time, resources and deliverables are reported.

Here is a link to the Project Dashboard template.

During the development stage, the project needs to ensure that the deliverables reach consensus and are also implementable by software. This need to be demonstrated through documented records.

- Documented action on expert reviews /comments

- Strong consensus between the project and the Expert Review panel

- Endorsement from relevant Support or Working Groups in accordance with the project plan

- Governing Room is properly kept up to date and no sustained opposition

- The extent of Public Consultation required at this stage shall be determined in consultation with the governing Room.

1.3 Stage 3 Approval

When the development is finalized, and the deliverables are completed, the project must demonstrate, with documented records, the Consensus Engagement achieved for the standard which shall normally include:

- Strong consensus between the project and the Expert panel
- Endorsement from Support or Coordination Working Groups in accordance with the project plan
- Governing Room kept up to date properly and no sustained opposition
- Public consultation inclusive of the circulation to Standards Committee complete and issues addressed

2 Project Delivery Responsibilities

The Room Steering Committee establishes a Room Project Steering Committee that governs all projects.

The Room Project Steering Committee approves Project Plans (subject to Standards Committee endorsement), keeps track of progress, and reports to Steering Committee in accordance with its Terms of Reference. (See Addendum 1 – Room Responsibilities)

The Room Project Steering Committee is chaired by a representative from the Room Steering Committee who has the specific duty, Project Steering Committee Chair.
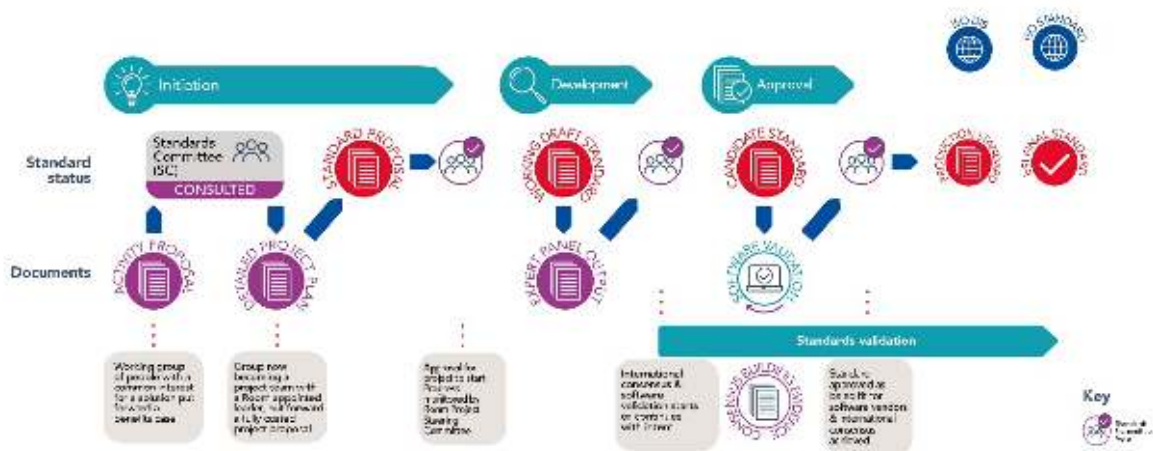

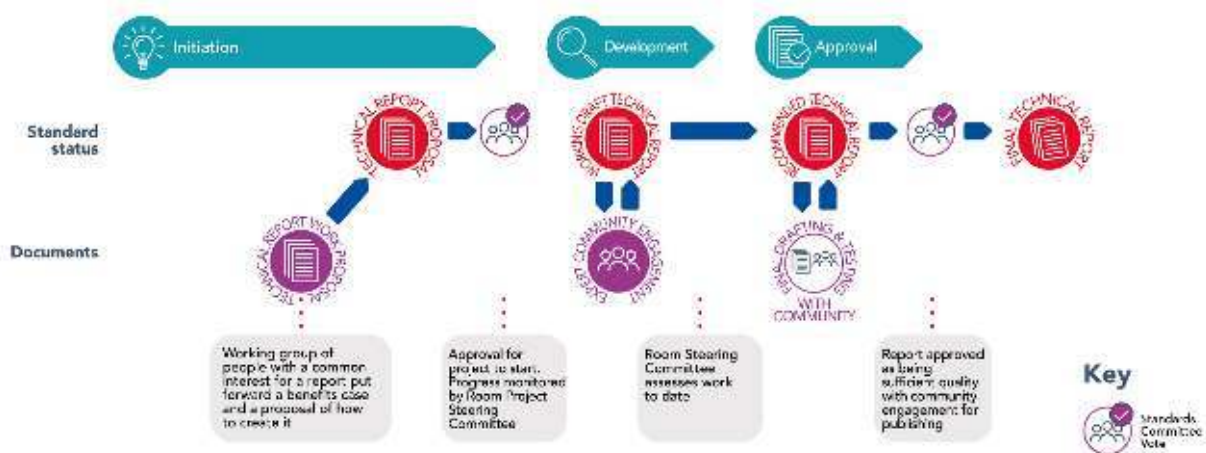*Figure 3i: bSI Project Process for creating a bSI Standard*

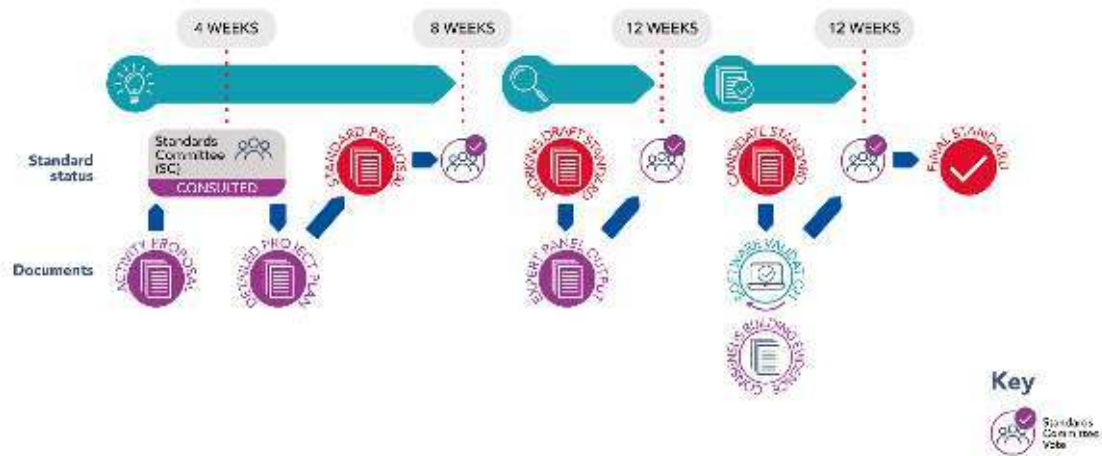*Figure 3ii: bSI Project Process for creating a bSI Technical Report*

Figure 3iii: bSI Process durations for Standards Committee consultation and voting.

A new project begins when the Room Steering Committee receives an enquiry to pursue the development of an initiative.

If the Room Steering Committee believes that the initiative is in line with the Room Charter then it will ask the proposer to complete an Activity Proposal.

The activity proposal working group will follow the process for engaging with the UCM as set out in the guidance documents from the webpage https://ucm.buildingsmart.org/ .

Note that there is no charge to a Room's project in for using the UCM, but bSI reserves the right to take a contribution towards its tenancy costs when sufficient funding is available in the project.

The Activity proposal is sent to the SCE through the bSI Management Office

The SCE will decide whether to send to the Standards Committee (SC) for consultation

[See Figure 3iii for the required durations of SC consultation and voting].

If the SC comment favourably on the proposal then the SCE will inform the Room that the activity should be allowed to proceed

If the SC have mostly negative comments regarding the proposal then the SCE is likely to inform the Room that the proposal shall not proceed.

The activity proposal working group then develops a Project Plan

The project plan has more specific information including milestone deliverables, funding and resource requirements and sources, Expert panel identification and meeting schedule. A project manager is nominated.

The Room Steering Committee appoint the Project Manager in consultation with the Project Sponsors and bSI Management office.

The Project Manager appointment is endorsed by the SCE.

The Project Proposal is sent to the SCE for endorsement to send to the SC for voting.

If the SC vote to endorse the plan, then the project enters the development phase. [For an explanation of the SC voting criteria see bSI Process Addendum 4 - Standards Committee Review Requirements]

The Project Manager will create a project dashboard in accordance with bSI template.

The Project Manager will send individuals and organizations who have indicated an interest in participating in the project an 'Agreement to Participate' document. This enables the individuals/organizations to confirm any sponsorship and or in-kind contributions which they are offering for the project. The bSI Management Office has a template for this 'Agreement to Participate' document which also includes the bSI Terms and Conditions for participating in a project.

After this stage, the Project Manager creates a consortium agreement or, for smaller projects a lighter version of a consortium agreement. An agreement letter is also an option when stakeholders require this instead. bSI can help with templates for these documents, all of which must include details of expert panel engagement, project team and deliverables and sponsors, including cash and work in kind contributions agreed. For more details see section 4.0 Activity Funding below.

The Project Manager shall report progress by presenting an updated Dashboard to the Room Project Steering Committee.

The Project Manager appoints a delivery team in consultation with the bSI Management office. This team will include personnel that are capable of creating and delivering the technical aspects in line with the Project plan scope of works. This might be one person or a team of people depending on resources needed. If a team then there will be a Technical Manager overseeing the work of the Technical Delivery team.

The Technical Manager and their team report to the Project Manager.

The Project Manager ensures that the team reaches out and consults with appropriate and relevant parties to stimulate the feedback required and achieve appropriate consensus. Projects and their governing Rooms shall keep records of the consensus building activity and that will be presented as support to Standards Committee submissions.

The Project Manager engages an Expert Panel to support the project and give advice on domain-specific or standard-specific issues within the context of a project execution.

Records of the Expert panel meetings and attendance is kept by the Project Manager for evidence of engagement.

Participation in the Expert panel is open to anybody including non-members.

During the execution of the Project, the Project Manager directs all project payment requests first to the Room Project Steering Committee for approval, then requests draw down of project funds from the bSI Management Office. (See section 4 for more details on project finances)
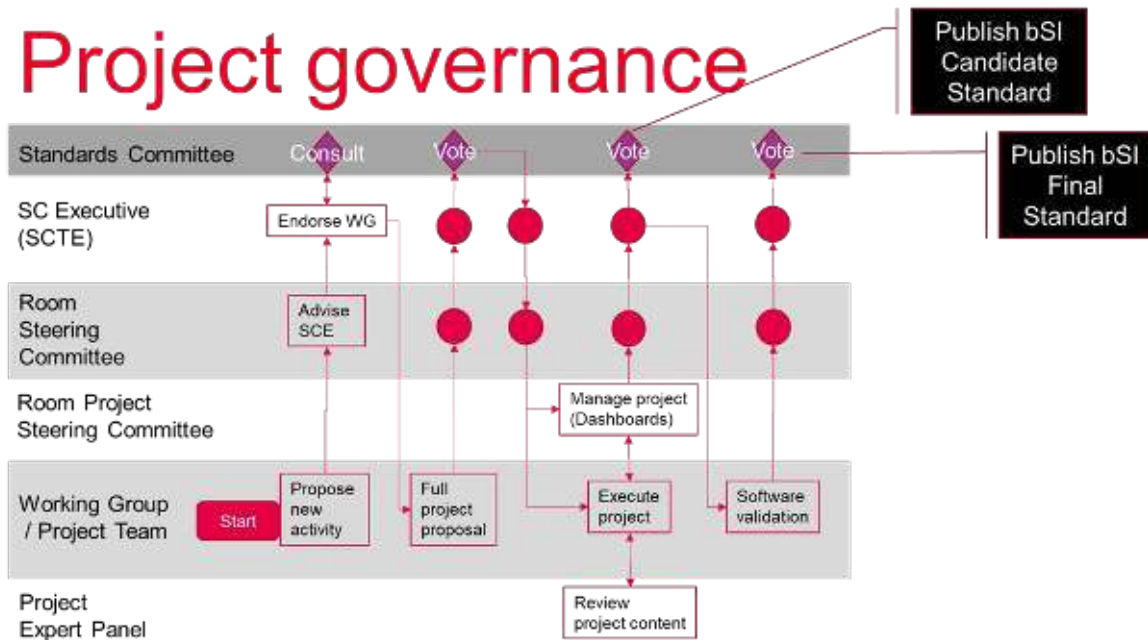
Figure 4: Project Governance

3   ISO Engagement

bSI and ISO have a long standing agreement whereby ISO can publish bSI Standards and bSI retains the intellectual property of the work. This is mutually beneficial to each organisation and the industrial community at large.

bSI will aim to introduce work that it wishes and expects should lead to an ISO Standards as early as possible into the ISO process. Ideally the desire for a bSI Standard to become an ISO Standard will be identified at the Detailed Project Plan stage and the relevant ISO Group will be informed and invited to Expert Panel meetings. The latest stage at which bSI is expected to initiate a New Work Item NWI in ISO is when appropriate work reaches bSI Candidate Standard status.

The venue and dominant governance and management authority shall be at and through bSI's meeting and process until bSI formally declares a body of work ready to be finalised as an ISO Standard. This is when a standard reaches the maturity of bSI Production Standard which is broadly equivalent as an ISO Draft International Standard DIS (save for some internal ISO processes to approve it as such). ISO and bSI will each provide their own administrative resource to facilitate the engagement of their respective communities / processes. Until such time as bSI 'passes the baton' ISO shall be passive.

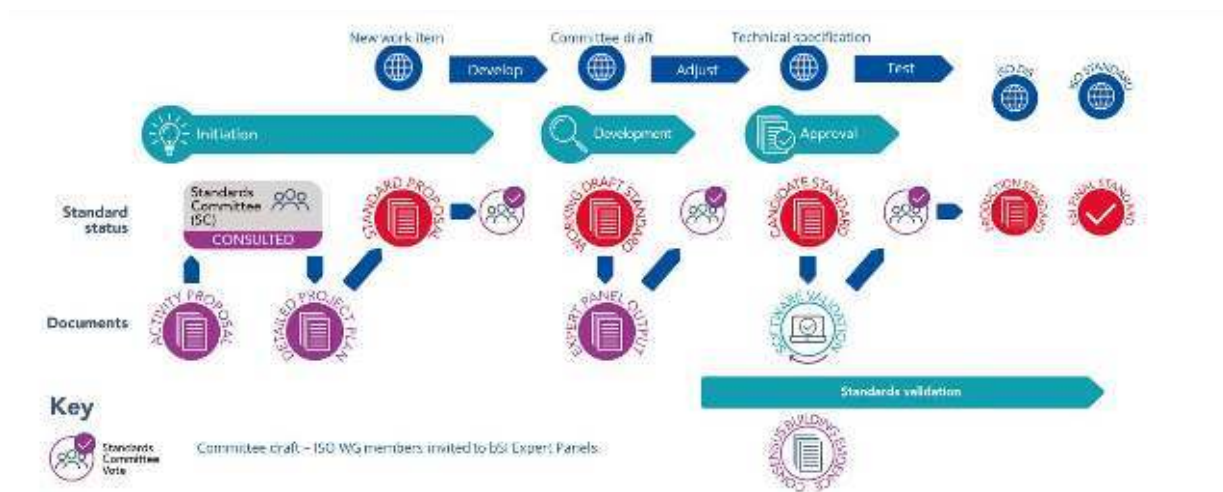The correlation between the bSI and ISO Processes is illustrated in Figure 5.

Figure 5: bSI & ISO collaboration and process alignment

4 Organizational Roles

Table 1: Organizational roles matrix

Role	Description	Formal results
Room (R)	The Room is an open fora or interest group where any interested party may attend. Attendance is most likely at a bSI Summit. It is intended that they may comprise both user and technical parties. The Room is a forum for discussion.	Appointment of Steering Committee (any representative may stand, but only voting delegates vote).
Room Steering Committee (RSC)	Developing and owning the Room Charter (policies) and work plan (roadmap) for the enhancement of openBIM in built asset management. Ensuring Room activities are conducted with adherence to the bSI Process Coordinating with bSI management office, SCE, other Rooms, other standardization bodies. Endorsing activities that deliver for the Room Roadmap Establishing projects to deliver the activities through the bSI Process and project leads (after approval of SCE). Assisting to raise sponsorship income. Appointing the Room Project Steering Committee Endorsing milestone payments on projects	Room Policy and work plan. Appointment of Room Project Steering Committee. Appointment Project Steering Committee Chair Established project, project lead. Approves outcomes from projects as delivered by RPSC and forwards to SCE
Room Technical Leader	Supports the Steering Committee and room to ensure that the projects and activities are aligned to the bSI technical strategy and work. Reports to the SCTE	
Room Project Steering Committee (RPSC)	The Room Project Steering Committee oversees the governance of all projects, gives advice on project plans and deliverables, keeps track of progress, and reports to Room Steering Committee in accordance with its Terms of Reference. The Project Steering Committee Chair acts on behalf of the RPSC as a liaison for day-to-day coordination of Projects.	Progress report Assessment report on both project plans and deliverables
Project Manager	Is responsible for the projects management and deliverables. Reports to the RPSC on time, cost and quality and raises issues and risks in good time.	Project deliverables e.g. a report or a proposed standard

Project Team	Executes a project based on a project plan and delivers the results according to plan. Reports to the Project Manager. Room members and Room Representatives are welcomes to join.	Progress report Project deliverables e.g. a report or a proposed standard
Expert Panel	Supports a project team and gives advice on domain-specific or standard-specific issues within the context of a project execution. Is open to anybody.	
Working Group	A working group is established to address an identified work item. It may develop a project plan, find funding, and propose a project manager.	Reports to the RPSC
Standards Committee Executive (SCE)	Have executive oversight of the standards program. Supervises the standards process. Coordinates the balloting by SC.	
Standards Committee Technical Executive	Review the technical deliverables and the quality of the software approval testing/validation work. In particular the SCTE will sign off the Expert Panel Outputs	
Sponsor	Provides funding or work in kind resource for a project. Is required to be a bSI member. Signs a consortium agreement with bSI and other sponsors for a particular project. Has representatives that sit on the RPSC	Work in kind and / or cash funding of activities.
Standards Committee (SC)	Approve the initiation of rooms, groups and standards projects and approve outcomes in accordance with the standards process.	Approval of the initiation of rooms, groups, and standards projects and approval of outcomes

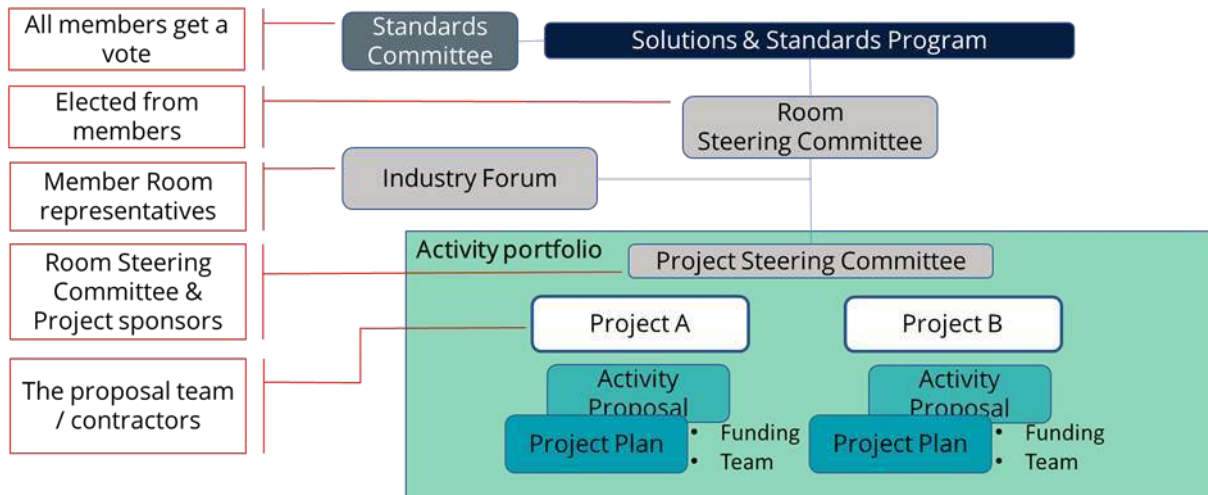| bSI Management Office (bSI MO)	Includes the Chief Executive, Operations Director, Marketing Director, Technical Director, Compliance Director and management staff (Finance Manager / International Program Coordinators / Events manager)	
	[Note: Operations Director is also the Solutions & Standards Program Leader / Company Finance Controller.]	
	Sets strategic direction in association with the Board and Strategy Advisory Council	
	Accountable for the delivery of strategic direction	
	Accountable for the governance process, policies & procedures of bSI	
	Accountable for financial control of the organisation	
	Provides the Program leadership	
	Provides the management resource to enable the Rooms and their activities to engage with the bSI Process	

Figure 6: Solutions & Standards Program organization and entitlements

5 Activity Funding

Activities are funded through sponsor support and this can be either monetary or work in-kind or a combination of both.

Sponsors agree to an agreement between all the contributing parties and bSI which may be a Consortium agreement for larger projects or a lighter consortium agreement or agreement letter for smaller activities.

The agreement shall include the fee costs for any services required for the project.

The agreement also details the level and type of sponsorship being committed. As the activity becomes a more defined project plan, the agreement is updated to reflect the funding against specified milestones.

Sponsorship shall be invoiced by and paid to bSI MO as the bSI Operations Director is accountable for the control of these funds.

If in exceptional circumstances, pre-agreed with bSI Management Office, the sponsors pay directly to the Project Manager, the Project Manager must still report to the Room Project Steering Committee.
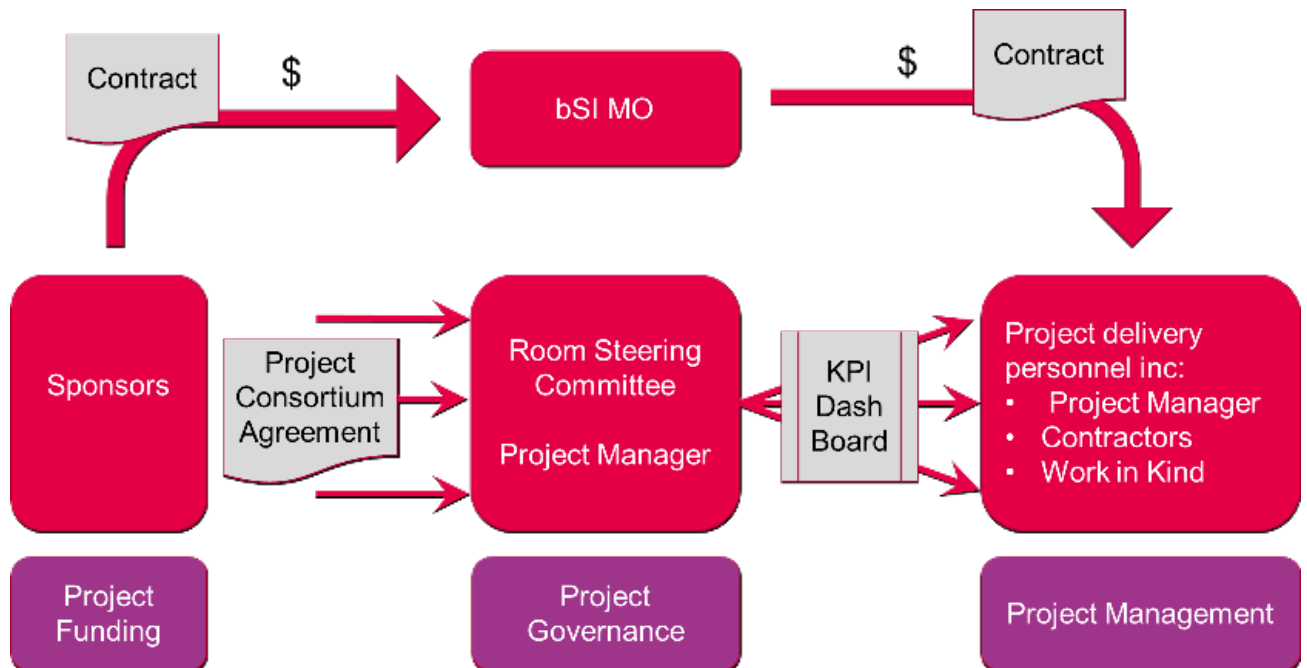
Figure 7: Project Funding

Upon receipt of the MOU from the Project Manager, the Solutions & Standards Program Manager will arrange the final contract agreements between the Sponsoring Organisations and bSI and between the Project Suppliers and bSI.

When the Project Proposal has been endorsed by the SC and the consortium agreement / MOU is signed, bSI MO will send invoices to all the sponsors that have agreed to pay a cash contribution.

Funds are received into buildingSMART International's bank account from Sponsor Organisations.

A project funding sheet is created detailing monies received and committed. The Project Manager is obliged to tell bSI MO when commitments have been made. bSI MO send purchase orders with bSI Terms & Conditions to each contractor that is to be engaged on a project. Commitments to pay contractors can only be made once bSI MO is satisfied that the risk of not receiving sponsorship is within appropriate limits. Pay rates for contractors, including any remuneration for project managers, shall be agreed with bSI MO.

bSI MO send the project funding sheet to the Project Manager on a monthly basis

The Project Manager demonstrates to the Room Project Steering Committee that specific milestones are complete against the criteria described in Stage 1- 3 and the Project Proposal. The Project Steering Committee advises the Room Steering Committee (through meeting minutes) who endorse payments to be made to the project contractors.

The Project Manager invites the contractor to submit their invoice to bSI MO Accounts. bSI MO Accounts makes the appropriate payment upon receipt of invoice and confirmation from the Project Manager that the invoice is approved for payment. Payments will only be made for items that have a purchase order assigned by bSI MO.

The indication of which roles are; accountable, responsible, consulted or informed are illustrated in the RACI in table 2.

Accountable means the owner of the work on behalf of the business. They are the senior party who has to ensure the work is done to schedule, within cost and to the correct quality.

Responsible refers to the people that actually do the work.

Consulted refers to the people who are informed but also their opinion is sought. It doesn't automatically mean that their opinions will be implemented though.

Informed refers to the people who are told about the plans and progress of an activity

Table 2: Project Funding RACI

	Program Leader + staff (bSI MO)	Project Manager	Room Leader / Steering Committee	Room Project Steering Committee	Finance Manager (bSI MO)
Overall funding management	Accountable	Responsible	Informed	Consulted	Responsible
Invoicing and Payments of sponsors and workers	Accountable Responsible	Consulted	Informed	Consulted	Responsible
Creating project proposal / plan	Accountable Informed	Responsible	Consulted	Consulted	Informed
Creating sponsor contract	Accountable Responsible	Responsible	Informed	Consulted	Informed
Creating Project worker contract	Accountable Responsible	Consulted	Consulted	Consulted	Responsible

The Program Manager may only release funds to the Project following authorisation from the Room Project Steering Committee.

In order to release funding, the project needs to demonstrate to the Room Steering Committee that all the criteria described in bSI Process document have been fulfilled.

The Solutions and Standards Program Leader (bSI Operations Director) is accountable for Project funds and will track the funds released to the Project.

Note: The Room Project Steering Committee will be made up of Room representatives and may include employees of the Sponsoring organisations.

6 Room Project Steering Committee Terms of Reference

Table 3: RPSC Terms of Reference

Title: Room Project Steering Committee Frequency: Monthly Time: 1.5 hours Meeting chair & secretariat: Project Steering Committee Chair, Room International Program Coordinator (bSI MO), Membership: Project Managers, Project Sponsors, bSI Management Office, Room Steering Committee representatives		
Terms of Reference **Context:** The bSI Process sets out the development of bSI Solutions & Standards. This is done within the Solutions & Standards Program. The Room activities are governed by the Steering Committee and the Project Steering Committee ensures that the process is being followed for Room activities on behalf of the Room Steering Committee. **Purpose:** This forum is an overseer of the Room activities. Its remit is to receive dashboard reports on the projects, to review; progress, issues related to schedule and cost adherence, forthcoming milestones and discuss issues by exception. It will take an overview of the links / dependencies between other of the Room activities.		Agenda - Adoption of agenda - Previous minutes - Review of Project Dashboard - Governing project and approval of payments - AOB
Inputs - Room Charter - Project dashboard reports Responsibilities - Project Managers are obliged to attend each meeting and provide an up to date dashboard	Outputs - Decisions and guidance to Project Managers on issues arising - Prioritisation of activities taking other Room activities into account - Requests to the Room Steering Committee and bSI MO to manage payments to suppliers - Requests to bSI MO to establish contracts with suppliers	Ground Rules - Committee only discusses projects that are endorsed by SC as a Working Draft Standard or beyond - The bSI Process and the Room Charter are the documents that determine governance of the projects