Individual Qualification, is the first release (Phase 1) of the Program

The Professional Certification Program exists to support training organisation to deliver internationally standardised and recognised training content. BuildingSMART will, through the Professional Certification Program :

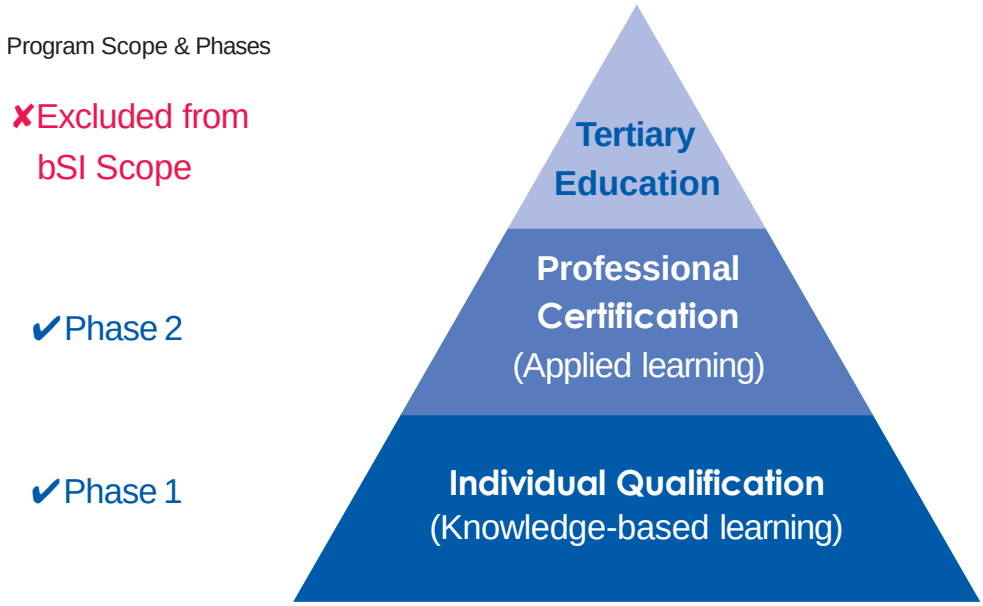
- Support the standardisation of openBIM training content
- Enable the approval of training organisations
- Test and qualify individuals

Scope

The Program is divided into two phases. Phase 1, called Individual Qualification, is the first release of the Program that focusses on knowledge-based learning. The Individual Qualification was developed based on the successful education program from buildingSMART Norway. In September 2017 this Program was officially launched by buildingSMART International and is now being adopted and implemented by Chapters around the world.

In Phase 2 a more comprehensive version of the Program will be launched that will focusses applied learning within the field. This second phase, simply labelled 'Professional Certification', is expected to be market-ready in 2021.

Tertiary education is the highest possible level of training. However, as buildingSMART is industry focused, tertiary education is not addressed within this Program.



Individual Qualification

Individual Qualification delivers in three areas:

- Content Development
  defining learning outcomes and related resources
- Course Approval
  the procedure to review and approve candidate training
- Individual Qualification
  the testing and qualification of individuals who have undertaken an approved training

Content Development

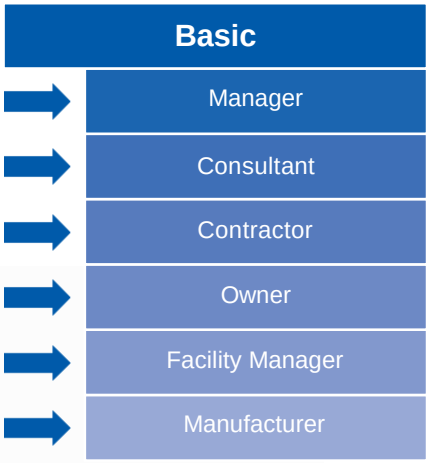
Learning content is delivered in multiple modules. There are currently seven modules planned (see below). The Basic module, which is already complete, is the foundation of the Program and is mandatory for all Chapters to adopt.

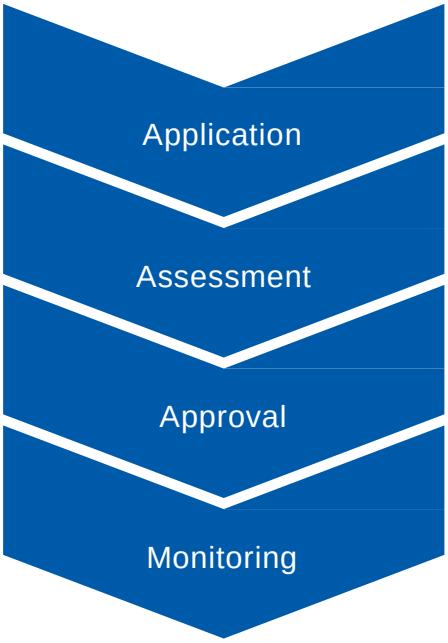
Each Module has specific learning outcomes defined by buildingSMART International (bSI). These learning outcomes are international standards. The buildingSMART Chapters who implement the Program cannot change the core learning content however, they can add additional local content to meet national standards or requirements.

Course Approval

Training providers who wish to deliver a buildingSMART approved course must apply to their local buildingSMART Chapter. The review and approval of training organisations follows a four-stage process.

Course approval is delivered by the buildingSMART Chapter, or its nominated representative. Training providers are obliged to pay a fee of between €1,500 – 2,500* for the approval process. Course approval will be valid for two years, after which time the training provider must reapply.





Individual **Qualification**

Individuals wishing to receive bSI qualifications must complete a buildingSMART approved course from a registered training Provider. Once the training is complete, the candidate is eligible to sit an exam and become buildingSMART Qualified.

Testing and qualification is managed via an online Qualification Platform. This is a straightforward multiple-choice exam that can be completed within 30 minutes. Directly after completely the exam, the candidate will be notified of their result. If they have passed, they will receive a digital certificate with their name, training provider, unique ID, date etc. which can be printed or shared digitally.

The cost of the individual assessment and qualification is between €75-125.*

Once the training is complete the candidate is eligible to sit an exam and become buildingSMART Qualified.

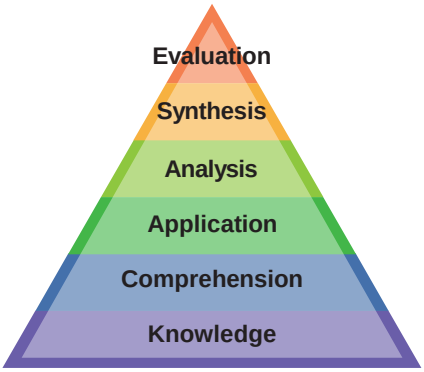
3 Learning Outcome Framework

3.1 Methodology and Structure

The Program utilises Bloom's Taxonomy to classify the level of learning required.

As an entry level, the Individual Qualification has been designed to satisfy only basic knowledge requirements around BIM specifically the knowledge and comprehension learning levels of Bloom's Taxonomy.

In Phase 2, the more advanced learning levels (application, analysis, synthesis and evaluation) will be addressed.



3.2 Learning Outcome Framework

The Learning Outcome Framework (LOF) is the core component of the Program. Each module is to have a minimum of 25 and maximum of 30 individual Learning Outcomes (LOs).

The LOs define the minimum learning that approved trainings must convey within their course curricula and is subsequently the framework against which applicant courses will be assessed and approved. The LOs are also the basis for the testing and qualification processes.

The Basic module contains 28 LOs.

3.3 Question Database

A question database of a minimum 150 questions is to be created foreach LO module. The question database is used in the Qualification Platform to randomly select questions for each candidate test.

3.4 Body of Knowledge

A Body of Knowledge will be created for each module. This is not a learning resource, but rather a source reference for each learning objective and question content covered in a particular module. Chapters may also wish to translate this into their local language to support their local training providers in developing their course.

3.5 Purpose and Use

Training Providers are encouraged to use this LOF as a basis for developing BIM training content. However, it is not intended that the LOs alone will compose a full course curriculum. The LOF represents the minimum learning and it is expected that approved courses will cover other content in addition to the LOs described within this framework. We suggest that the time required to sufficiently cover all content within the LOF is not less than 6 hours. This is designed to be implemented into training courses with a duration of 1 – 2 days.

The LOs define the minimum learning that approved trainings must convey within their course curricula and is subsequently the framework against which applicant courses will be assessed and approved.

buildingSMART Professional Certification

Basic Learning Outcome (Overview)

1 Understand what BIM is, why it is needed, and recognise its specific terminology.

1. Define the drivers that have led to BIM;
2. Define BIM;
3. Identify & define key BIM terminology;
4. Define BIM maturity levels;
5. Define what constitutes an Information Model.

2 Recognise the advantages of BIM compared to traditional project delivery.

1. Know why collaborative and new ways of working are required;
2. Identify the effects of poor information management on projects;
3. Identify the standards developed to mitigate poor information;
4. Identify the benefits of BIM to construction professionals;
5. Identify the benefits of BIM adoption to clients and facility management.

3 Understand the project information development cycle (and its key terms); specifically how project information is specified, produced, exchanged, and maintained.

1. Know why employers need to clearly define their requirements (EIR);
2. Know why the supply chain needs to agree a plan to execute BIM on the project (BEP);
3. Know why consistent exchanges of information are required;
4. Identify the key elements and benefits of using a collaborative exchange platform (CDE);
5. Know why clearly defined information management responsibilities are required;
6. Know why assessing potential supply chain members before appointment is required.

4 Recognise the need for open and interoperable solutions.

1. Define the buildingSMART community;
2. Define openBIM and its benefits compared to using proprietary products and systems;
3. Know what IFC is and its benefits;
4. Know what MVDs are and their benefits;
5. Know what IDMs are and their benefits;
6. Know what the bSDD is and its benefits;
7. Know what BCF is and its benefits.

5 Identify an organisation's capability in working with BIM.

1. Understand the potential benefits for a company in adopting BIM;
2. Understand the factors that define an organisation's level of BIM Maturity;
3. Know why BIM adoption needs to align to organisational goals;
4. Identify the benefits and challenges to BIM adoption;
5. Know what the data security implications are for adopting BIM.

Organisation & Sponsorship

4.1 Organisational Structure

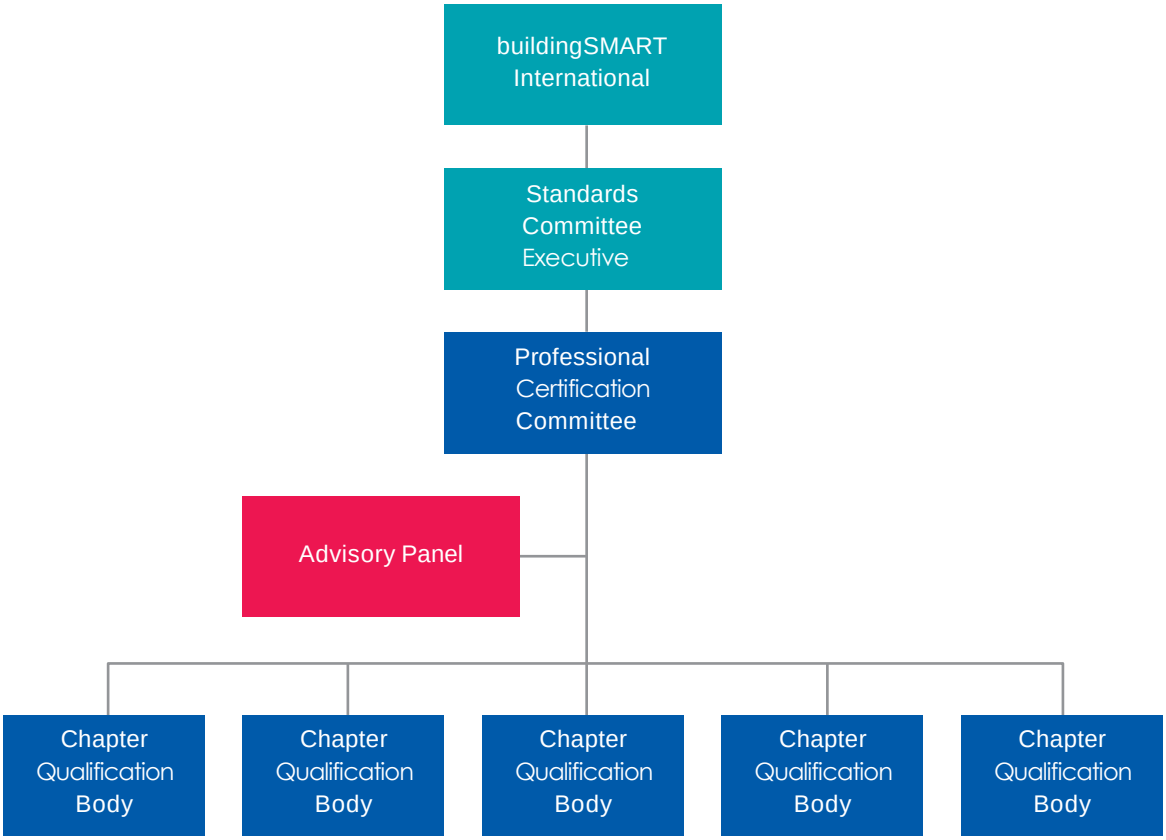
The Program is managed at an international level by the bSI Professional Certification Committee. This body, currently representing seven buildingSMART Chapters (Canada, Germany, Japan, Korea, Norway, Spain, Switzerland and UK & Ireland) reports to the bSI Standards Committee Executive (SCE) and coordinates all 'down-stream' development of the Program with the local Chapter committees. An Advisory Panel provides external input and peer review.

4.2 Sponsorship

The Program will have a huge impact on BIM education around the world. It will establish a benchmark for professional competency and will help raise the level of BIM delivery across the global industry.

We are offering a select number of organisations to partner with us at an international level. Becoming an international sponsor enables an organisation to align itself with this important initiative.

An Advisory Panel provides external input and peer review.



Program Organisation

Programma di Qualificazione Individuale BuildingSMART International

Mara Passuello

L’innovazione digitale sta cambiando gli ambienti di lavoro e i profili professionali, incidendo sull’apprendimento e sul lavoro.

La rapida crescita del Building Information Modelling (BIM) nei settori dell’architettura, dell’ingegneria e delle costruzioni ha messo in luce la necessità di un rapido aggiornamento di parte degli attori coinvolti.

Se da un lato alle figure tradizionali del processo di progettazione è richiesto di aggiornarsi, il processo BIM sta creando l’esigenza di disporre di figure professionali dotate di nuove competenze manageriali, informatiche e di trattamento dei nuovi dataset.

E’ in questo quadro che si colloca il programma di qualifica individuale internazionale buildingSMART.

IBIMI, in collaborazione con Global Power Service, sponsor del programma, erogherà un corso in modalità e-learning **riservato ai soci**, valido per la preparazione al test online da superare per l'ottenimento dell'attestazione internazionale di qualificazione professionale buildingSMART.

SEZIONI FORMATIVE ONLINE!

Il corso sarà offerto in modalità webinar come anche l'esame, che si svolgerà online su piattaforma gestita direttamente da buildingSMART.

In caso di esito positivo, verrà rilasciato un certificato attestante il conseguimento delle conoscenze del Building Information Modelling previste dal programma di Qualificazione Individuale di buildingSMART International.