

ETOPIA™
ACADEMY

BIM MANAGEMENT

BIM ISO 19650 in Practice

www.etopiacademy.com



Unlock Your Potential





Why Learn with Etopia?

Since its inception, ETOPIA is aiming to link academic knowledge with professional requirements.

For this reason, it counts on the most influential and reputable organizations and professionals in the industry in order to provide an immersive experience in the industry. Our programs are created in direct collaboration with the most innovative practices and are designed to enrich the industry with professionals trained under the prism of increased use of technology and problem-based learning.

With our programs, we offer unique training paths to individuals and Corporates that aim to transform to BIM, adopt their information management process with the latest engineering technology / best practices in order to overcome the challenges, as well as, improving sustainability in the built environment.

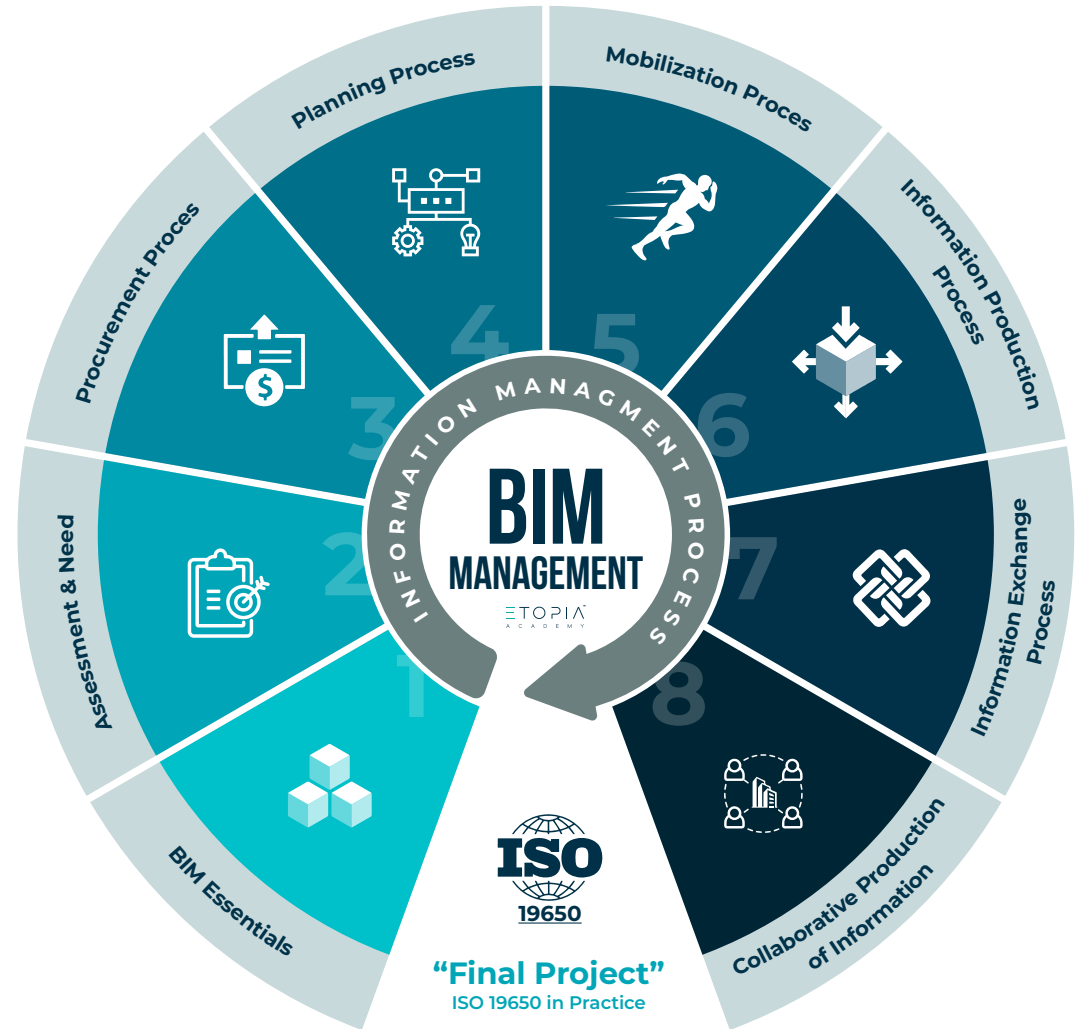
Path

BIM Management



BIM Management Path

- BIM Essentials
- Assessment & Need
- Procurement Process
- Planning Process
- Mobilization Process
- Information production process
- Information Exchange Process
- Collaborative Production of Information
- Final Project : ISO 19650 in Practice



Aim:

- This path will cover the entire BIM project lifecycle and provide you with the knowledge and skills required to manage BIM-based information flow at each project phase. In addition, you will learn how the BIM process has been transitioned in alignment and integration to the international ISO 19650 standards.
- You will learn about each step of the process, the function and activities, and those responsible for their implementation.
- The BIM management path is structured into eight courses based on the information management processes defined within the ISO 19650 series and collaboration practice during the delivery phase of assets.
- Each course finishes with an action plan to help you start planning your next steps in putting ISO-19650 into practice in your organization or project.



Who Should Attend?

- ✓ Commercial & Project Managers of Construction Companies.
- ✓ Quantity Surveyors.
- ✓ Project Managers.
- ✓ Contract Administrators.
- ✓ Architects.
- ✓ Estimators.
- ✓ Facilities Managers
- ✓ All construction professionals.
- ✓ Engineers for all trades.
- ✓ Design leaders.
- ✓ BIM Engineers.
- ✓ BIM Coordinators.

Prerequisites

- ✓ A Basic understanding of BIM Methodology
[Get a Free BIM essentials course](#)
- ✓ Autodesk Revit Certified Professional
[Get a Free Autodesk Revit course](#)
- ✓ Practical BIM experience in BIM software regularly in a professional environment. [\(Optional\)](#)



Course 1

BIM Essentials



BIM ESSENTIALS

BIM ISO 19650 in practice

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Aim:

- Building Information Modelling (BIM) has become a higher priority area in the AEC sector. Subsequent, Engineers need to meet challenges resulting from the new technological advancements, especially digitalization in construction. In addition, the desire to reduce cost and time from the construction and operation of the built environment and the need to be more sustainable are pivotal drivers for change.
- BIM can support the adoption of collaborative behaviors and practices, connecting intelligent design to information-based technologies to unlock efficient ways of working throughout the project life-cycle. This course provides an introduction to Building Information Modeling. You will learn the principles and concepts of the BIM process.
- By the end of the course, you will have embedded good knowledge of BIM methodology, terminology, maturity models, and practical tools.



Who Should Attend?

This course is highly recommended who are new to BIM or have just a little prior experience.

- ✓ Commercial & Project Managers of Construction Companies.
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- ✓ Project Managers.
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- ✓ Architects.
- ✓ Estimators.
- ✓ Facilities Managers
- ✓ All construction professionals.
- ✓ Engineers for all trades.
- ✓ Design leaders.
- ✓ BIM Engineers.
- ✓ BIM Coordinators.

Prerequisites

- ✓ There are no course prerequisites as the course is an introduction and starting point for everyone.



Course Content

“BIM Essentials”

1

What's BIM?

2

Why BIM?

3

BIM Uses

4

Who is doing BIM?

5

BIM Tools and
Parametric Modeling

6

BIM Standards
& Protocols

7

INTEROPERABILITY

8

BIM and its links
to other paradigms
in the industry

9

Implications of BIM
on organizations.

10

The Future:
Building with BIM.

Course 2

Assessment & Need



ASSESSMENT & NEED

BIM ISO 19650 in practice

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Aim:

- Information requirements are the most important concept of information management as they define the inputs for the whole project lifecycle. To define information requirements, start with why information is needed before the information itself is considered.
- This course focuses on the activities undertaken during the "Assessment and needs" stage based on the information management processes defined within the ISO 19650 series. You will learn how to set different types of information requirements and formulate Project Information Requirements (PIRs).
- This course finishes with an action plan to help you start planning your next steps in putting ISO-19650 into practice in your organization or project.



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Prerequisites

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- ✓ Practical BIM experience in BIM software regularly in a professional environment. (Optional)



Course Content

“Assessment & Need”

1

Information Management Overview

2

UK BIM implementation

3

Applying ISO 19650 to projects and assets

4

BIM maturity in ISO 19650

5

Information delivery cycle (IDC)

6

Project delivery cycle (PDC)

7

ISO 19650-1 Guidance

8

ISO 19650-2 Guidance

9

Functions and activities

10

Information Requirements and Deliverables

11

Documentation of Project Information

12

Project Information Requirements (PIR)

13

Summary and action planning

Course 3

Procurement Process



PROCUREMENT PROCESS

BIM ISO 19650 in practice

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Aim:

- The procurement of information needs to be planned in detail and in advance. This stage applies to both projects and asset management. This course recognizes how can implement BIM requirements within the appointment and tendering framework.
- This course focuses on the activities undertaken during the “Procurement Process” based on the information management processes defined within the ISO 19650 series. You will learn how to prepare the requirements for each invitation to tender & tender response and the criteria by which you will evaluate tender responses.
- This course finishes with an action plan to help you plan your next steps in putting ISO-19650 into practice in your organization or project.



Who Should Attend?

- ✓ Commercial & Project Managers of Construction Companies.
- ✓ Quantity Surveyors.
- ✓ Project Managers.
- ✓ Contract Administrators.
- ✓ Procurement Engineers
- ✓ Tender Engineers
- ✓ Architects.
- ✓ Estimators.
- ✓ Facilities Managers
- ✓ All construction professionals.
- ✓ Engineers for all trades.
- ✓ Design leaders.
- ✓ BIM Engineers.
- ✓ BIM Coordinators.
- ✓ BIM Managers.

Prerequisites

- ✓ A Basic understanding of BIM Methodology
[Get a Free BIM essentials course](#)
- ✓ Assessment & Needs course
[\(Recommended\)](#)
- ✓ Autodesk Revit Certified Professional
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- ✓ Practical BIM experience in BIM software regularly in a professional environment. [\(Optional\)](#)



Course Content

“Procurement Process”

1

Invitation to
Tender (EIR)

2

Evaluation
Criteria

3

Tender Response
(pre-appointment BEP)

4

tender Response
BIM Capability and
Assessment

5

BIM scope of work

6

BIM Protocols &
High-level
responsibility matrix

7

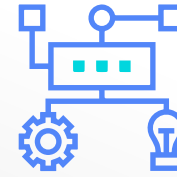
BIM Contracts-IPD

8

Summary and
action planning

Course 4

Planning Process



PLANNING PROCESS

BIM ISO 19650 in practice

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Aim:

- The value of BIM has been illustrated through well-planned projects. However, there have also been projects where the team did not effectively plan BIM implementation. This causes increased costs for the modeling services, schedule delays due to missing information, and little to no added value. Implementing BIM requires detailed planning for the project team members to achieve the value from the available model information successfully.

The point is that teams should not focus on whether or not to use BIM in general, but instead, they need to define the specific implementation areas and detailed BIM uses.

This course focuses on the activities undertaken during the “Planning Process” based on the information management processes defined within the ISO 19650 series.

- This course finishes with an action plan to help you plan your next steps in putting ISO-19650 into practice in your organization or project.



Who Should Attend?

- ✔ Commercial & Project Managers of Construction Companies.
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- ✔ Project Managers.
- ✔ Contract Administrators.
- ✔ Planning Engineers
- ✔ Architects.
- ✔ Estimators.
- ✔ Facilities Managers
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- ✔ Engineers for all trades.
- ✔ Design leaders.
- ✔ BIM Engineers.

Prerequisites

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[\(Recommended\)](#)
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Course Content

“Planning Process”

L1

Introduction to BIM
Execution Plan

L2

BIM Project
Execution Planning
Procedure Overview

L3

Setting Goals

L4

BIM Uses

L5

BIM Process Modeling

L6

Information
Delivery Planning
(RM,TIDP,MIDP)

L7

Infrastructure for
federation strategy
(Model Planning)

L8

Infrastructure
for collaboration

L9

Infrastructure for
Quality management

L10

BIM plan template

L11

BEP case studies

L12

Summary and
actionplanning

Course 5

Mobilization Process



MOBILIZATION PROCESS

BIM ISO 19650 in practice

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Aim:

- This course focuses on the activities undertaken during the “Mobilization process” based on the information management processes defined within the ISO 19650 series. The mobilization activity should result in individuals being available, educated, and trained to generate information and deliver the information model for authorization and acceptance.
- The mobilization plan may take different forms, for example, a schedule, a table, or even a Gantt chart.
- This course finishes with an action plan to help you plan your next steps in putting ISO-19650 into practice in your organization or project.



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- ✓ BIM Coordinators.
- ✓ BIM Managers

Prerequisites

- ✓ A Basic understanding of BIM Methodology
[Get a Free BIM essentials course](#)
- ✓ Planning Process course
[\(Recommended\)](#)
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[Get a Free Autodesk Revit course](#)
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Course Content

“Mobilization Process”

1

Delivery team
mobilization plan

2

Mobilize Resource

3

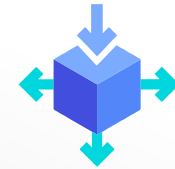
IT Resources:
Technological and human

4

Test Methods
and procedures

Course 6

Information Production Process



INFORMATION PRODUCTION PROCESS

BIM ISO 19650 in practice

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Aim:

- The importance of information management is providing a framework that allows for the delivery of the correct information, at the right time, to the right actors. Information models are progressively developed across the project lifecycle. Level of Information Need is a conceptual indication of the required level of quality, quantity, classification, and granularity.
- You will learn how the level of information needed can ensure the minimum amount of required information and how Information verification and validation at the project stages.
- This course focuses on the activities undertaken during the “Information production process” based on the information management processes defined within the ISO 19650 series. This course finishes with an action plan to help you plan your next steps in putting ISO-19650 into practice in your organization or project.



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Prerequisites

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[\(Recommended\)](#)
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Course Content

“Information Production Process”



Level of Development
(LOD)-BIM Forum



Level of information
need (LOIN)-BS EN
17412-1:2020



BIM Object
standards (NBS)



Classification
(Uniclass)



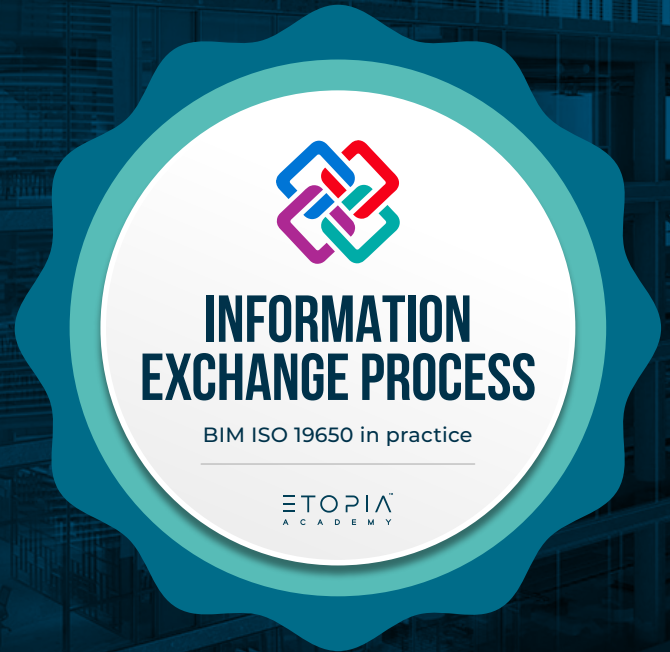
Information Quality
management



Summary and
action planning

Course 7

Information Exchange Process



Aim:

- Digital workflows are critical in projects involving many disciplines, software applications, and organizations that must collaborate and exchange information to achieve success. Interoperable, open, international standards for BIM that transcend traditional design, construction, and Handover phases to enable a comprehensive digital environment for the entire project and asset lifecycle offer substantial benefits.
- This course focuses on the OpenBIM standards & COBie, which enable the entire built asset industry to improve the exchange of information throughout the lifecycle of a project or asset.
- This course finishes with an action plan to help you plan your next steps in putting ISO-19650 into practice in your organization or project.



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in a professional environment. [\(Optional\)](#)



Course Content

“Information Exchange Process”

1

OpenBIM
Standards

2

OpenBIM
workflow

3

Industry Foundation
classification (IFC)

4

BIM Collaboration
Format (BCF)

5

Information Delivery
Manual (IDM)

6

COBie (Handover
Information Exchange)

7

Summary and
action planning

Course 8

Collaborative production of information



**COLLABORATIVE PRODUCTION
OF INFORMATION**

BIM ISO 19650 in practice

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Aim:

- The fundamental principle in producing and managing information models is a secure and collaborative environment called CDE, a common data environment. There is a potential misconception that the CDE is more about technology and less about workflows. Fundamentally, workflows are developed first, and solutions are selected to facilitate the workflow.
- This course focuses on the activities undertaken during the “Collaborative production of information” stage based on the information management processes defined within the ISO 19650 series.
- This course finishes with an action plan to help you plan your next steps in putting ISO-19650 into practice in your organization or project.



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Prerequisites

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[Get a Free Autodesk Revit course](#)
- ✓ Practical BIM experience in BIM software regularly in a professional environment. [\(Optional\)](#)



Course Content

“Collaborative Production of Information”

L1

CDE overview

L2

CDE Process

L3

CDE workflow

L4

CDE information
container

L5

CDE Naming Convention

L6

CDE Manual

L7

CDE Solution
(BIM 360 Doc)

L8

CDE Solution
(Trimble connect)

L9

CDE implementation
case studies

L10

Summary and action planning



Final Project

ISO 19650

in practice

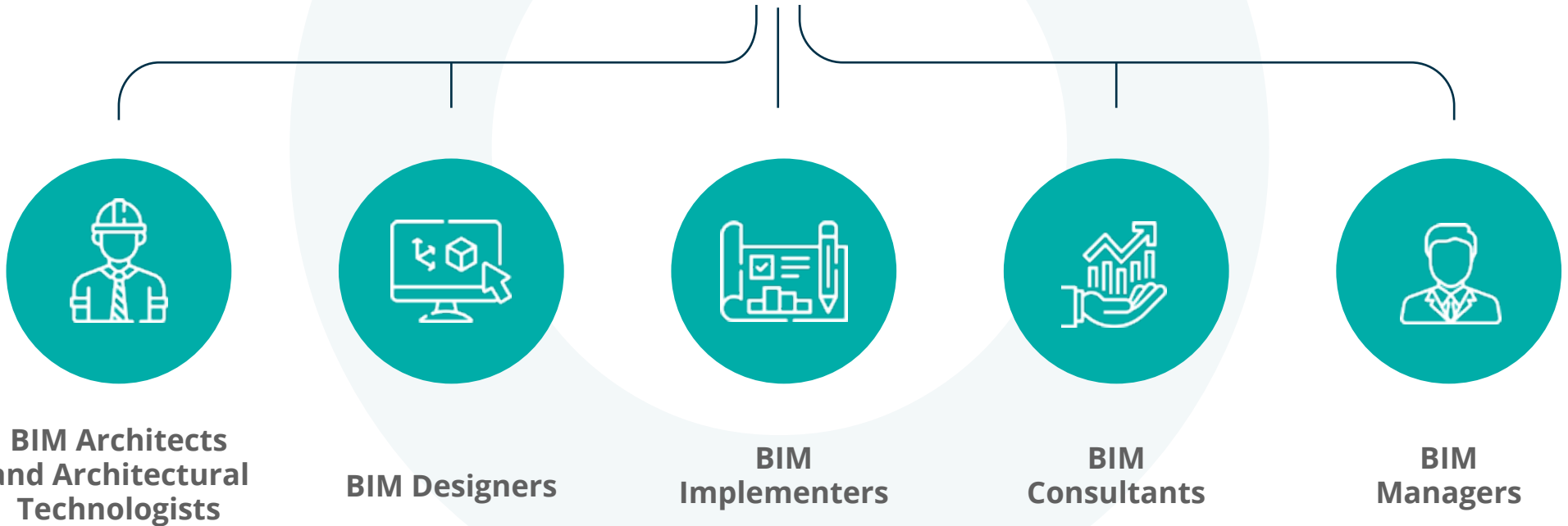


Aim:

- The case study is an actual project simulation-based exercise developed using ISO 19650 series from the beginning of the training program that allows the participants to input all the knowledge acquired during the sessions.
- Ultimately, you can manage BIM-based information flow at each phase of the project and implement collaboration with your project stakeholders.



Students who have completed the BIM Management Program may thrive within the following professional profiles



Website Features



Technical & academic support



Etopia social community



Online quizzes



Certificates & digital badges



Podcast



Access content from any device



ETOPIA Paths

For Individuals & Teams:

- **Stand-alone online BIM Management Courses**

- ✓ High quality recorded videos.

- **BIM Management Bootcamps**

- ✓ Set of 8 online BIM Management courses
- ✓ High quality recorded videos.

- **BIM Management Path**

- ✓ Set of 8 online Courses
- ✓ Follow-up Live Sessions
- ✓ Practical Final Project.
- ✓ High quality recorded videos.

- **Complete a Standalone BIM course**

- ✓ Get an ETOPIA BIM course certification
- ✓ Digital Badge.

- **Complete a BIM Bootcamps**

- ✓ Get an ETOPIA Academy Silver BIM Certification
- ✓ Digital Badge

- **Complete a BIM Path**

- ✓ Get an ETOPIA Academy Golden BIM Certification
- ✓ Digital Badge
- ✓ ISO 19650-Part 1,2 Practitioner



Get
Started!

Apply Now!

www.etopiacademy.com

