



Module 1

# Introduction

Digitalisation in Construction



24  
partners

12  
countries

\*Date of Event\*

\*Author/ **Institute**\*

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The aim of the programme is to increase the learners' knowledge of digital tools, techniques and practices applied to the construction sector.



# Programme objectives



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1. List and describe the key policy and legislative drivers, relevant to digitalisation in the construction industry.
2. Identify the need and benefits of digitalisation for the construction industry
3. List and describe the key digital tools, techniques and practices used to support the construction of quality buildings
4. Identify best practice of a number of construction methods and details using digital tools and techniques to achieve quality buildings
5. Identify best practice of a number of service methods and installations using digital tools, techniques and technologies to achieve quality buildings
6. Understand how to communicate with other trades using collaborative digital tools and techniques to achieve quality buildings
7. Understand how to apply digital problem solving workflows and solutions on site



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# Programme content



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- EU and National Drive
- Introduction to Digital Tools
- Introduction to Digital Technologies
- Introduction to Data Protection
- Introduction to BIM
- BIM uses in construction
- BIM and collaboration
- Responsibilities and knowledge transfer
- Introduction to quality checks
- Quality checks on site
- Automation and Artificial intelligence
- Construction 2030
- Tools for Energy Efficiency
- Tools for Circular Economy
- Introduction to digital passports



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## Introductions



Introduce yourself



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# Introduce Yourself



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You can use your phone or tablet and connect to:

- Slido.com

Or

- use the QR Code XXXXXXXX

slido

In this exercise we would like you to download the QRCode App and use the QR Code



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# Introduce Yourself



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- State Full Name
- Use 3 words to describe your type of work
- What do you hope to get out of this course?

Use whiteboard/Slido and type away.



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# Introduce Yourself



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## How do I scan a QR code without an App on my mobile phone?

Open the camera and focus it at QR-code.

1. Press and hold the Home button
2. Tap the magnifying glass icon to scan QR Code
3. Tap the pop up notification
4. Welcome to Slido.

slido



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The Digitalisation Programme will be delivered in a blended format:  
**Online theory and face to face practical work**

**Online** – self-directed learning (everything can be done at home)

Read the slides, watch the videos and read the extra resources, then complete the quiz or online activity.

**Face to Face** - practical learning in class, on-site or at a workshop.

You are to read the information/PPTs and videos first, before attending class to prepare for the practical workshop or class.



# Assessment



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Continuous assessment will involve the completion of online gamification quizzes and/or completion of individual or group practical work.

Group work includes one or more of the following:

Practical work, group discussions, group presentations or individual work.



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# Quizzes



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# Kahoot!

Learning tool **Kahoot**

<https://kahoot.com/>

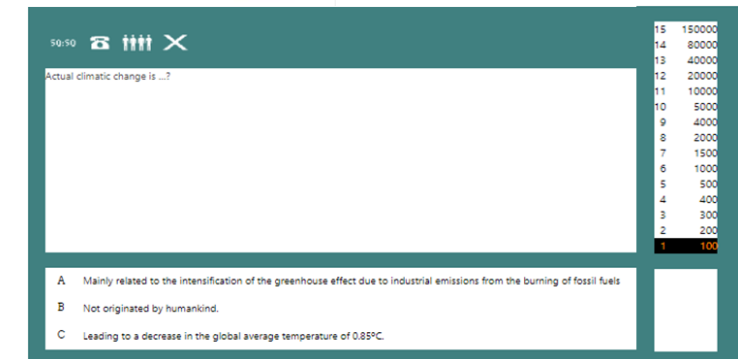
<https://kahoot.com/home/mobile-app/>



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## Gamification Quizzes in Moodle



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# Indicative Timetable



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Module Number	DESCRIPTOR	Delivery	Method of Assessment	Duration Hours
1	<b>Introduction</b>	Online		1.00
2	<b>European &amp; National Drive</b> EU Digitalisation Policies National Digitalisation	Online	Quiz	1.00
3	<b>Introduction to Digital Tools</b> Communication Tools Collaborative Tools	Online	Quiz	1.00
4	<b>Introduction to Digital Technologies</b> On site Technologies Off site Technologies	Online	Quiz	1.00
5	<b>Data Protection</b> Cyber Security Digital Data protection and storage	Online	Quiz/Activity	1.00



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6	<b>Introduction to BIM</b> BIM Fundamentals BIM Principles BIM Uses and Software	Online	Quiz/Activity	2.00
7	<b>BIM Uses in Construction</b> BIM Objects Maturity levels Use of BIM in each Phase	Online	Activity	3.00
8	<b>BIM and Collaboration</b> Accessing info through the cloud Accessing info with mobile devices (apps, QR etc) BIM review and problem solving Quantification and Clash Detection	Online/ blended	Activity	3.00
9	<b>Roles and Knowledge Transfer</b> Roles BIM and file structure Digital Workflows System thinking	Online/ blended	Quiz/Activity	3.00



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10	<b>Introduction to Quality Checks</b> Quality Control and Checks Building Compliance	Online/ blended	Quiz/Activity	3.00
11	<b>Quality Checks on Site</b> Building Fabric Checks Building Services Checks	Online/ blended	Quiz/Activity	3.00
12	<b>Construction 2030</b> Quantum Computing and Blockchain Digital in the Future Future Choices	Online/ blended	Quiz/Activity	1.00
13	<b>Automation and Artificial Intelligence</b> Automation Artificial Intelligence and 3D Printing Wearables and Extended Reality Smart Controls	Online/ blended	Quiz	1.00



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14	<b>Tools for Energy Efficiency</b> Energy Efficiency Tools Energy Simulation Tools	Online/ blended	Quiz/Activity	2.00
15	<b>Tools for Circular Economy</b> Sustainable Construction BIM checks for LCA BIM checks for LCC	Online/ blended	Quiz/Activity	2.00
16	<b>Introduction to Digital Passports</b> Digital Log Books Digital Building Passports Digital Renovation Building Passports	Online/ blended	Quiz/Activity	2.00
<b>Total Duration of Modules</b>			<b>30.00 hrs (4 days)</b>	



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# Thank You

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European Federation  
of Building  
and Woodworkers

