











A collaboration

of leading industry and academic bodies to change construction







To upskill & industrialise the construction industry

In 2017, CITB published a report 'Faster, Smarter, More Efficient' that highlighted how offsite could revolutionise the industry.

As part of this research, CITB asked construction companies expecting to use offsite manufacturing if they needed improved offsite skillsets over the next 3-5 years.

38% said that they needed offsite upskilling.

However challenges faced offsite upskilling, including lack of awareness, skills deficiencies, and gaps in training. This made it necessary to increase the general standard of knowledge about offsite manufacturing but also to improve the quality and pervasiveness of teaching it.

CITB invested £1.2m in 2019 into 2 offsite upskilling projects: one of these was Offsite Ready. Offsite Ready proposed to train academics and educators teaching construction-related subjects in universities, colleges, schools and private institutions – a nation-wide initiative to 'Train the trainer.'

Teaching educators how to properly prepare, ready and upskill construction's future workforce.





Training UK educators in offsite manufacturing

Offsite Ready delivered innovative training to develop skills and knowledge on offsite manufacturing.

First partners collaborated to create a standardised body of knowledge on offsite and identify the new materials, skills and competencies needed in education and industry. Mark Milne from CSIC created a competency framework on offsite manufacturing, which Edinburgh Napier then used to create the content. 19 academics helped develop these materials along with an expert industry panel, visiting actual live offsite developments as part of their research.

From this, the project aimed to deliver a matrix of offsite training: a website, an online course, a student summer project challenge, in-depth training resources, a teaching support system and live training events – initially intended to be face-to-face.

However, due to the UK lockdown, Offsite Ready and CITB held meetings to discuss the project's future. Offsite Ready proposed continuing the training online. CITB agreed.

The project launched nationally on April 23rd with a 90 minute webinar.

Offsite Ready went on to teach educators in schools, colleges, & universities across the country.



— The Materials

The Materials

An industry collaboration

Made with academics for academics



CSIC CSIC created the framework for the material



Edinburgh Napier Academics developed the



City of Glasgow College Academics ensured material matched a qualification framework

The Online Resources

Free & accessible digital expert materials

The project created digital resources for <u>offsiteready.com</u> and an <u>online course</u>. Offsite Ready made these materials free to give modern, flexible training to any educator, including infographics, 381+ pages of written material, videos from the authors, workshop and talking head videography, slides and animations: an unprecedented depth of content.

Modules in Course

The course contained 7 modules on key areas of offsite.

- 1. Offsite fundamentals
- 2. Digital design
- 3. Estimating / commercial
- 4. Logistics
- 5. Offsite manufacture
- 6. Onsite placement & assembly
- 7. Management & integration

"Faster, Smarter, More Efficient" applied to digital learning.









The Training

The Online Webinars 💻

Delivering live & direct specialised training

After the initial launch, 5 of the partners delivered live training sessions throughout Scotland, England and Wales from April to September 2020. These targeted specific colleges, universities and institutions, bringing them high-quality training. Class of Your Own focused on teaching 42 teachers from 33 schools, developing modules and certifying the trainees.







The Partners

An industry collaboration

Partners collaborated to deliver live training across the UK

CONSTRUCTION SCOTLAND

MOBIE

CENTRE

– Design Challenge –

The Student Programme

Piloting Offsite Ready's learning materials

The project took 18 current students in the built environment from further and higher education. It put them through a challenge as a pilot of the Offsite Ready learning materials and as a case study on teaching offsite in a creative studio. The project created a design brief for students to engage with offsite, develop meta skills and get guidance from expert members of the industry.

The Brief -

The students' brief: to design an inclusive, productive and ecological visitor hub in Beecraigs Country Park using offsite. <u>The brief</u> is available for teachers to freely use and apply to their own classroom in Offsite Ready's <u>teaching support system</u>.





The students' final designs

Both designs impressed the industry panel and there are discussions about using them as a reference & basis for an actual visitor hub in the next 2-3 years.

The Contributors

An expert collaboration of mentors and judges







People [Making Offsite Ready]

The creation of the Offsite Ready learning materials included the collaboration of 40 individuals.







[Analysing Offsite Ready]

The Offsite Ready project completed and exceeded on its deliverables.

Training Statistics



Overall achievements

164 joined April's opening event, which marked the start of a further 25 live training sessions that taught 640 educators nation-wide.

The framework that the course materials were based upon has become a highly sought after resource that many organisations could use.

The 1500+ educators trained through webinar training events and the online course could, in turn, teach ten of thousands of people in construction's future – an investment that will pay off over the future years and decades.

Partner achievements

- COYO ran workshops & training for schools in England in 2019-20. They issued 31 CPD certificates in June 2020. 100% confirmed modules were a good training resource, 67.4% confirmed future use, and the modules received an average 4.5/5.
- MOBIE are mapping the Offsite Ready training resources to the Pearson B-Tec qualification for it to be part of this qualification.
- CSIC & City of Glasgow College were nominated for the College Development Network Award's Digital Learning Award for the Offsite Ready digital platform.

Outcomes

/Challenges



The Coronavirus pandemic meant the project had to be redirected. Due to it being a training programme, online webinars allowed the project to still be delivered; however, this required the adaptability, resilience and ingenuity of the project partners, stakeholders, and people involved

/Milestones



- First of its kind large-scale training programmes in offsite manufacturing
- Certified many academics in offsite for the first time
- One of the only offsite courses designed for educators freely available in the world



- There is a desire, demand and need to learn about offsite manufacturing
- Digital upskilling methods are powerful, pervasive & effective, especially in a post COVID world
- Quality large scale programmes and initiatives to educate national audiences and fill industry skill gaps is not only necessary but possible

People who took the course Case Study



"A user friendly inventory of resources to support not only their own personal development, but that of their learners."

What were the benefits of the training?

"From an educational perspective, it was completely appropriate, particularly in a post COVID education sector. The way Caitriona facilitated the learning was very effective in terms of how the learning was conducted with the resources and exercises required of the attendees. It severed as reminder to myself and my colleagues about how the sector should be delivering training."

How do you intend to use the resources?

"The training stimulated discussions for us as a team in terms of how the resources can support the delivery of our current and future programmes."

How can we improve?

"The training was excellent especially given how delivery was restricted owing to covid. A series of "teach meets" in the same format would be useful as a rolling programme for lecturers."



Marc Fleming -

Took Offsite Ready's Digital Design and Estimating training

"I am an Academic and Quality Manager at Fife College who oversees a range of curriculum offerings from SCQF Level 4 to SCQF Level 9 across the Construction Craft and Built Environment Technician qualification groups, including Modern Apprentices for all the Construction Trades and Technician areas." People who took the course Testimonials



Getting feedback on the training was vital to the project's success and future training quality. Some of the highlights:

"Some of this needs to be adopted as an overall 'standard' by all."

- Wyn Pritchard, Director of Construction Skills and Business Strategy at NPTC Group

"...extremely comprehensive."

- Joe Dyde, Business Manager, Build Offsite

"The course was good and well presented. The quiz at the end kept me right in helping me prove my knowledge. This course will help me to be able to speak to trainees I work with from a more knowledgeable viewpoint on offsite and modular construction."

- Edward Jeffery, review on the online course

"The Offsite Ready learning content would make a fantastic Masters programme that our colleagues could really benefit from."

- Paula Louise McKeown, CPD coordinator, CIAT Scotland Eas

Next Steps

Offsite Ready has opened up new possibilities in large scale upskilling

"Collaboration and a willingness to adapt has been the key to successfully delivering this programme," - Kaye Keenan, Project Manager, Offsite Ready

The project will continue with online training. All of Offsite Ready's modules will be available to access on the new CSIC future skills training platform. CSIC also want to explore the possibilities of future digital learning programmes and continue working to establish the UK as the international centre of offsite.

















A special thanks to all of the project partners involved and CITB who made the project possible.

#offsiteready

hello@cs-ic.org www.CS-IC.org 0141 212 5250



Construction Scotland Innovation Centre

Kaye Keenan Douglas Morrison Mark Milne Brenda Joyce Alan Johnston Kirsty Duncan Danielle Miller Helen Maguire Rohan Bush

Edinburgh Napier

Dr Mila Duncheva Prof Robert Hairstans Alasdair Reid Arnaud De Saint-Sernin Carola Calcagno **Dave Jarrold Dr Andrew Livingstone** Dr Eoin Plant O'Toole Dr Julio Bros Williamson Dr Kenneth Leitch Lenka Kovacova Louise Rogers **Prof Patrick Langdon Prof Sam Allwinkle Victor Henguel** Wojtek Plowas

University of Salford

Juan A Ferriz-Papi

City of Glasgow College Caitriona Jordan Andy Pollok

Class of Your Own Ray Elysee

Alison Watson

MOBIE

Gerry Raffles Mark Southgate

CWIC

Gerald Naylor Lindsay Richards Gareth Evans Julie Evans

Industry

Amy Pryce, Radar Communications Ann Bentley, Rider Levett Bucknall and Construction Leadership Council Beverly Stirling, West Lothian Council Dwiriana Setiati, ilke Homes Eirwen Hopwood, West Lothian Council Emma Cooper, SWECO Jamie Hillier, AKERLOF Lisa Avins, ilke Homes Matt Stevenson, SNRG Rebecca McLean, SWECO Roman Barran, Canary Wharf Contractors Rory Doak, Stora Enso





