# CASE STUDY - Digital Skills for All

How the construction sector is meeting the challenge of the 4th industrial revolution and equipping its existing and future workforce with digital skills

'We have seen significant advancements in digital technologies within construction over recent years. This has presented substantial opportunities to improve the sector's productivity, health & safety, collaboration, and decarbonisation. It is imperative that the skillset of construction workers align with these developments to ensure that we fully capitalise on the opportunities.'

Ifan Glynn, Senior Hub Director/Wales Director, Federation of Master Builders
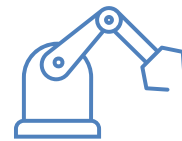
Overview

CITB in partnership with employers from the construction sector has developed a framework of digital competences which will be used to help people coming into the industry or working in the industry become more digitally proficient. Employers in the sector have recognised that improved digital skills will increase productivity, efficacy and enable individuals to easily move to different projects and roles within construction.

CITB is the Government recognised industry skills body for the construction sector in England, Scotland, and Wales. Their role is to help the construction industry attract talent and to support skills development, to build a better Britain. CITB collects a levy from the industry and invests the levy in training and training products and solutions, apprenticeships, research, and policy activities.

In the financial year 2020/2021, CITB invested ££94.5m in the construction sector to support apprenticeships, qualification achievements and training for all different types and sizes of employers.

What will an industrial revolution mean for construction?

It is clear to see signs of change already emerging in the sector, particularly in relation to digital technologies. Equipment such as drones, autonomous vehicles, 3D printers and robotic bricklaying machines, a wide range of new materials and practices such as off-site construction are readily available. This transformation offers the opportunity for a significant increase in levels of productivity and profitability within the industry which is expected to triple in size in the years to 2030.

But to achieve this significant growth, the current and future workforce will need to be skilled in using these different transformative technologies.

Importantly, digital skills have value across the whole of the UK economy as all industries start to harness the benefits of technology to improve business performance. And individuals who have digital skills will have transferable skills and therefore longevity in the sector and the labour market.

What do construction employers need?

A recent survey by CITB, asked employers which digital skills are most important. The response was as follows:

- Demonstrate a basic understanding of the use of data
- Understand the most common and other potential threats, as well as ways to mitigate risks
- Understand and comply with legal obligations, such as GDPR regulations
- Use associated hardware, such as glasses, headsets, drones, and cameras
- Use laptops and particular operating systems, including Windows and Linux
- Provide and or use automated machinery with instructions
- Understand tools for producing data
- Connect to the local network on a device and access information stored remotely
- Capture high quality images and views of land and sites using particular tools

"For many years, we've recognised the importance of digital skills for those working at all levels, in the civil engineering sector. The ability to operate in a digital environment is essential for improving communication between our people, making our operations more effective and efficient and ensuring that our technical delivery is the best it can be. Our industry is undergoing a revolution in the way it delivers - this is underpinned by digital technologies and our people are embracing this change."

Ed Evans, Director Wales, Civil Engineering Contractors Association

It is clear to see from the responses to the survey, employers have specific concerns over both general IT literacy and data handling which is common across the UK economy. But also, construction employers need digital skills specific to the sector to operate construction hardware and software solutions used for example in construction design.

By understanding exactly what employers need in terms of digital skills, CITB in conjunction with the sector have been able to create a solution.

What is being done to address these challenges?
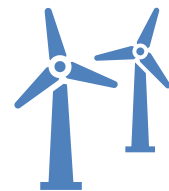
The Digital Competence Framework – illustrated below

To facilitate and enable the construction sector in attaining these important skills, CITB have developed a competence framework which captures the digital competencies, knowledge and behaviours identified as being most important by employers.

The competence framework can be used as a useful starting point for companies to map the skills of their current workforce, identify which digital skills different cohorts of staff members require and highlight any gaps.

CITB have also gone on to identify possible methods of use. For example:

- Form development subgroup(s) to identify which IT skills different cohorts require for the company based on the competency grid.

- Prioritise the identified training related to business need.

- Identify training already offered via CITB approved training standards that matches the identified need, and availability of Approved Training Organisations (ATO's).

- Identify training/skills development that is not offered by CITB approved training standards and identify external or internal providers.

- Develop company bespoke training programme against specific needs identified via the framework delivered either by external training organisations or internally if capability exists.

The Digital Competence Framework will now allow CITB to identify if any National Occupational Standards (NOS) already exist to underpin the development of training and learning solutions including qualifications. By having a common readily available set of NOS for digital skills which could be used by many different industry sectors, the transfer of skills and mobility of labour will be maximised making recruitment and retention much easier.

Additionally, City and Guilds are developing a qualification to accredit the digital skills identified in the competence framework. From September 2022, all main trade construction apprentices in Wales will need to achieve this qualification to be successful in their full apprenticeship award.

Digital Competence Framework
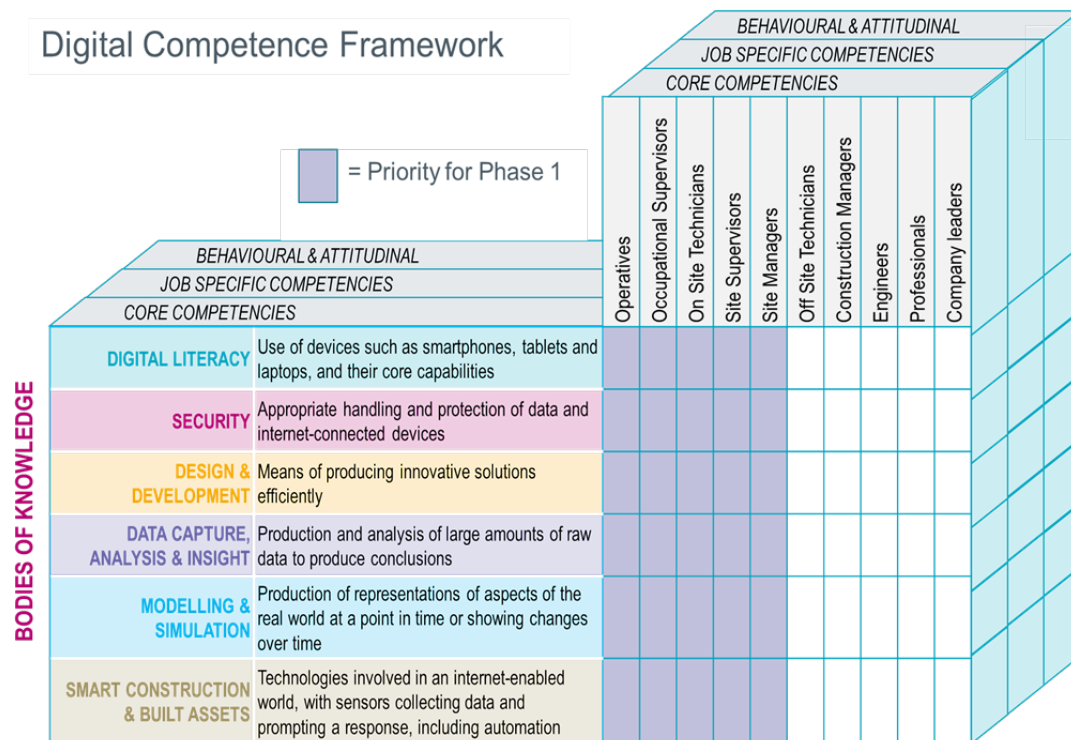
Conclusion

The NOS Governance Group, with representation from Wales, Scotland and Northern Ireland have exemplified in the new NOS strategy, 2022 and beyond, the importance of transferable skills.

NOS Strategy Mission

'**To simplify and improve access to NOS, offering linkages across the skills landscape and supporting the concept of lifelong learning by enabling individuals to gain the transferable skills most critical to the economy of the future.'**

The NOS Governance Group are pleased to be able to showcase the work being undertaken by CITB and the construction sector to help realise the mission outlined above and look forward to seeing the results of this exciting project.

For more information on The Construction Digital Competence Framework please contact gareth.williams@citb.co.uk

For information on NOS and the NOS Strategy 2022 and beyond please go to www.ukstandards.org.uk