Industry Skills Plan

for the UK Construction Sector 2021 – 2025

Construction Leadership Council

Foreword

We have all experienced exceptional times, and the COVID-19 pandemic has drastically changed the world we live in. But we need to keep the focus on what matters most – retaining talent and building a solid foundation for the future of the construction industry.

In order to deliver what industry needs now and into the future, we need skilled individuals. The Built Environment has a wide reach of sectors, so how can we ensure we have a skilled and competent workforce across such a breadth of occupations? This is the considerable challenge we need to break down into smaller pieces and tackle, as it is the key to unlocking improved productivity and enabling construction to thrive and to maintain and deliver the UK's build pipeline.

This Industry Skills Plan is developed by industry, for industry. It complements our existing CLC Industry Recovery Plan and moves us towards addressing the ever-growing skills gap. How our industry has adapted to the challenges of the COVID-19 pandemic shows what we can achieve when working together.

The plan also highlights how skills challenges play out across our very wide and varied industry. For example, the net zero agenda challenges us to change the game in how we build new buildings, but also offers a significant opportunity to the smaller firms that power the Repair, Maintenance and Improvement (RMI) sector as we gear up to retrofit millions of homes to meet higher environmental standards. Similarly, the digital skill needs will create totally new ways of doing things, as well as the potential for collectively massive efficiency gains through small improvements. One example of this is equipping hundreds of thousands of small and micro firms in our industry with the knowledge and skills required to adopt digitalised processes and management tools. For SMEs, cloud and mobile-based Enterprise Resource Planning (ERP) software streamlines the control of workers, materials, logistics, tools and equipment – in turn driving efficiency, quality and productivity.

We will build upon some of the great work we've achieved to date. Our Talent Retention Scheme (TRS) is just one example of how we're mitigating the skills loss within construction following the COVID-19 pandemic. We have also used CLC's Future Skills research[1] to understand what needs to be done to prepare the industry for new ways of working. At the same time, we have increased the reach of the Construction Ambassadors scheme by aligning it with STEM Learning to help ensure we are nurturing the future pipeline of talent. The growing awareness of Fairness, Inclusion and Respect also means we are making the industry a better place to work, for those currently in it and those who will join in the coming years.

This plan will be developed into a co-ordinated group of activities that will be delivered through CLC workstreams and working groups. We will measure and report progress against this plan for at least the next four years. To provide a short-term focus, we are tackling four priority challenges in 2021. These priorities centre around the culture and careers within the industry, particularly how we can improve routes into the industry, as well as the individual competence and skills required for a modern construction sector. However, major uncertainty still remains over the period covered by this plan so it will need to adapt as it is delivered. The pandemic crisis is playing out in an industry already cast into uncertainty with Britain's departure from the European Union.

Each year we will update on progress through the plan so that bit by bit we can deliver these challenges. As ever, continued collaboration from all stakeholders will be required to achieve the ambitious goals we have set out. We have made this easier by outlining clear owners and actions against each challenge, so everyone understands how they can contribute. Positive engagement and sector-wide adoption of this plan will ensure we are able to reinvent and transform the skills base of the construction industry.

Sarah Beale
Chief Executive,
CITB and Chair,
CLC Skills Network

Mark Reynolds
Group Chief Executive,
Mace and CLC, Steering
Co-ordination Group

[1] CLC Future Skills Report 2019

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Executive Summary

Industry Overview and Forecast Demand

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Core Skills Challenges

For more information see page 14.

Routes into Construction

For more information see page 15.

This plan outlines how we will work together to solve core skills needs by ensuring we have the necessary high-quality training and development to build an industry that is a great place to work, with clear routes of entry and progression to attract and retain talented people.

Employment:
2,745,550[1]

Planned Investment:
£850bn+

Gross Value Added (2018):
£200bn

Careers	Standards and Qualifications	Training, Education and Development	Culture and Working Environment
Together we can create an industry that is attractive to talent and bring those skills in through multiple routes	Together we can create the underpinning foundations for high-quality, transferable skills and pathways for learning	Together we can enable high-quality routes into industry and development in industry to provide the skills needed now and in the future	Together we can create an industry whose culture and operations make it a great place to work that retains talented individuals
Study	Work + study/training	Employment + study	Sustainable employment

[1] For construction contracting and building professional services as core plan focus. Component of full built environment statistics outlined in page 10

Addressing Our Skills Needs

For the first year of this plan's lifetime we want to focus on the four key areas outlined here.

The following pages set out, for each challenge, the details of key actions that need to be achieved to meet them. Case studies have been included to demonstrate the work that is already underway and the progress that industry is already making.

1. Improve **access** to opportunities for all and **attractiveness** of careers

Enables

1.1 Support **access for all** industry to operate a more inclusive culture to encourage new entrants at every stage of their career and retain skilled workers

1.2 Make construction an **attractive career sector** of choice through better development, delivery and showcasing of the career development opportunities our varied industry offers

1.3 Strengthen support for **direct employment** as an enabler of apprenticeships, upskilling and attractiveness of careers

2. Boosting all routes into **industry**, including enhanced work experience provision for those in full-time FE and HE

Enables

2.1 Grow the number of apprentices and enhance the routes to and through **apprenticeships**, including the role of the Apprenticeships Levy (AL)

2.2 Improve the links between **FE** and employers, and the pathways from FE into apprenticeships and employment. Support the T Levels route

2.3 Improve the links between **HE** and employers, and the pathways from HE into employment

3. Competence: Shift to focus on competence through the development of sector-specific competency frameworks. Ensuring both "point in time", ongoing continuous professional development (CPD) and revalidation of competence

Enables

Develop **higher technical qualifications** to support progression

Health and Safety: Improve and embed higher standards of safety practices within the industry

Modernise standards and qualifications to deliver the skills our industry needs in the future (e.g. digital and behavioural)

4. Skills for a modernised industry: Up-skilling and re-skilling in the skills that are required to transform the industry. This will incorporate focus on both new technologies / methods, (e.g. off-site), and the requisite behaviours, (e.g. creativity, sustainability, and inclusion)

Enables

Skills to deliver **net zero** carbon targets through retrofit, new build and construction operations

Deliver skills to embed emerging **innovations** and **digital technologies** to improve efficiency, productivity, sustainability and building safety

Addressing Our Skills Needs – actions

Challenge 1.1 Access for all	Plan to support well-being and mental health services Deadline: June 2021	Roll out FIR Programme Deadline: June 2022	Diversity measuring, monitoring and target setting Deadline: December 2022	1,700 active Ambassadors Deadline: January 2024	
Challenge 1.2 Attractiveness of Careers	Agree standard for work experience and increase quantity of placements Deadline: June 2021	Implement Work Place Promise Deadline: September 2021	Clear career paths info and portal Deadline: Ongoing	Support Kickstart and Skills Bootcamps Deadline: September 2021	Construction Talent Retention Scheme 1% redeployment Deadline: 2025
Challenge 1.3 Direct Employment	Collate direct employment good practice Deadline: October 2021	Support Gov to mandate direct employment through procurement Deadline: April 2022	CLC-hosted evidence base on benefits of direct employment Deadline: April 2022	Engage with Gov Employment Status Team Deadline: April 2022 with commitment in place by December 2022	Embed procurement to demand direct employment in supply chains Deadline: December 2024
Challenge 2.1 Routes into Industry – Apprenticeships	All apprenticeships on .gov site Deadline: May 2021	Support Gov AL transfer reform Deadline: August 2021	Extend current Gov COVID-19 incentives for employers for new apprentices to end of year Deadline: September 2021	Develop fast track from FE to apprenticeship Deadline: August 2021	Develop Kickstart brokerage service for SMEs Deadline: 2021-2024
Challenge 2.2 Routes into Industry – FE	Develop construction traineeships Deadline: Bricklaying traineeship launch 2021	Industry/FE increase accuracy of skills forecasting by location and role Deadline: April 2021	Develop employer engagement with FE work experience Deadline: Spring 2021	Employer incentives, resources for colleges, brokerage for traineeships Deadline: 2021	Guidance to increase provider and employer engagement Deadline: Autumn 2021	Increase quality of technical education, streamline L2/3 Deadline: Summer 2023

Addressing Our Skills Needs – actions (continued)

Challenge 2.3 Routes into Industry – HE	Link employers, providers and schools to improve availability of work experience opportunities Deadline: June 2021	HE providers to embed FIR in recruitment criteria Deadline: June 2022	Collaborate for curricula design/delivery for skills needs Deadline: June 2022	Assess accreditation routes into professions for single discipline courses to produce hybrid managers Deadline: June 2023
Challenge 3 Competence	Assist Working Group 2 preparations for sector competence framework pilots Deadline: June 2021	As part of these preparations, ensure effective dialogue with priority sectors and support wider industry and stakeholder engagement Deadline: June 2021	Support pilot groups in developing first wave of sector-specific competence frameworks, in line with Working Group 2 recommendations and BSI Overarching Framework Deadline: December 2021	Roll out competence frameworks across occupations Deadline: December 2024
Challenge 4 Skills for a Modernised Industry	Use future skills research for Smart Construction and Net Zero to influence standards and training Deadline: April 2021	Define career pathways to support modernised skills Deadline: 2021	Gov procurement to encourage Smart Construction Deadline: 2021	
	Update routes to entry and new entrant standards and qualifications for Smart Construction and Net Zero Deadline: 2021	Develop Smart Construction training for existing and new industry roles, and embed into standards and qualifications Deadline: 2022	Develop training for skills to enhance traditional delivery roles with digital, technical and collaborative practices Deadline: 2022	Review and update apprenticeship standards and technical qualifications to meet Net Zero Deadline: 2022
	Support and fund innovation for flexible learning (inc. immersive and online) Deadline: 2022	Support development of Construction Higher Technical Qualifications L4/5 Deadline: 2023	CLC Centres of Excellence to develop relationships and integrate tech upskilling Deadline: April 2024	

Opportunities and Challenges

Introduction

This plan will be developed into a co-ordinated group of activities that will achieve the outcome set out in both this plan and the CLC Industry Recovery Plan, through CLC workstreams and working groups.

Despite the upheaval over the last year, the pandemic has driven an impressive collaborative approach between our industry and Government, evidenced by the CLC Industry Task Force and its regular engagement with the Department for Business, Energy and Industrial Strategy (BEIS). The development of the CLC Industry Recovery Plan is the result of a stronger level of co-operation and support with Government. This can really enable better progress with addressing what seemed to be entrenched skills challenges in the past, such as the poor conversion rates from FE, the insufficient levels of direct employment and low levels of diversity in the industry.

Industry Overview

Broad and Narrow Industry Structures

This plan is by industry, for industry.

The narrow definition of the industry conforms to the definition used in official statistics, covering those who construct, repair and maintain buildings. However, the built environment has a significantly wider reach across other sectors and the supply chain, all requiring the skills needed now and for the future to deliver and maintain the UK's build pipeline.

A broader sector can be seen to include the supply chain for construction materials, products and assemblies, and professional services such as management, architecture, engineering, and surveying.

We believe the industry should increasingly be viewed in terms of its wider definition as the current and future fortunes of these activities are critically intertwined.

Quarrying of construction materials
550 enterprises
19,700 workforce
90 apprenticeship starts
£1,383 GVA (£million)

Professional services
137,320 enterprises
641,830 workforce
5,250 apprenticeship starts
£42,506 GVA (£million)

509,210 enterprises
£200,251 GVA (£million)
3,540,950 workforce
£366bn economic output (2018)
35,390 apprenticeship starts[1]
£850bn+ planned investment

Manufacture of construction products, materials and assemblies
22,685 enterprises
365,400 workforce
2,500 apprenticeship starts
£23,891 GVA (£million)

On-site assembly by non-contractors
2,905 enterprises
89,000 workforce
2,050 apprenticeship starts
£1,584 GVA (£million)

Contracting and Building Engineering Services: buildings, infrastructure and RMI
355,005 enterprises
2,291,250 workforce
24,700 apprenticeship starts
£108,738 GVA (£million)

Sale and repair of construction products, materials, and assemblies
22,890 enterprises
321,300 workforce
800 apprenticeship starts
£21,694 GVA (£million)

[1] Number of apprenticeship starts by sector of employer and subject of learning aim for 2018/19. Covers England only.

Source: Workforce, CITB estimate based on Labour Force Survey (2019) and Business Register and Employment Survey (2019) Enterprises, UK Business Counts - enterprises by industry and employment band size (2019) GVA, Annual Business Survey 2018 (Release Date 15 May 2020) Apprenticeships, Skills Funding Agency (Academic year 2018/19)

The Broader Opportunity

Construction is a core sector of the economy. If we can improve its productivity, through improving its people's skills and the retention of those skills, there is a massive benefit to be gained.

There is also the opportunity for construction to make the most effective contribution to society and the environment through the skills of its people.

Improving the effectiveness of 2.7m people powering 11.2% of GVA

Social
- Providing sustainable, satisfying careers that are open to all
- Delivering a built environment that meets the needs of society through improved infrastructure, public services and housing and in this way contribute to social value and help tackle economic inequality
- Technical education reforms can help to unlock attitudes to and participation in the sector

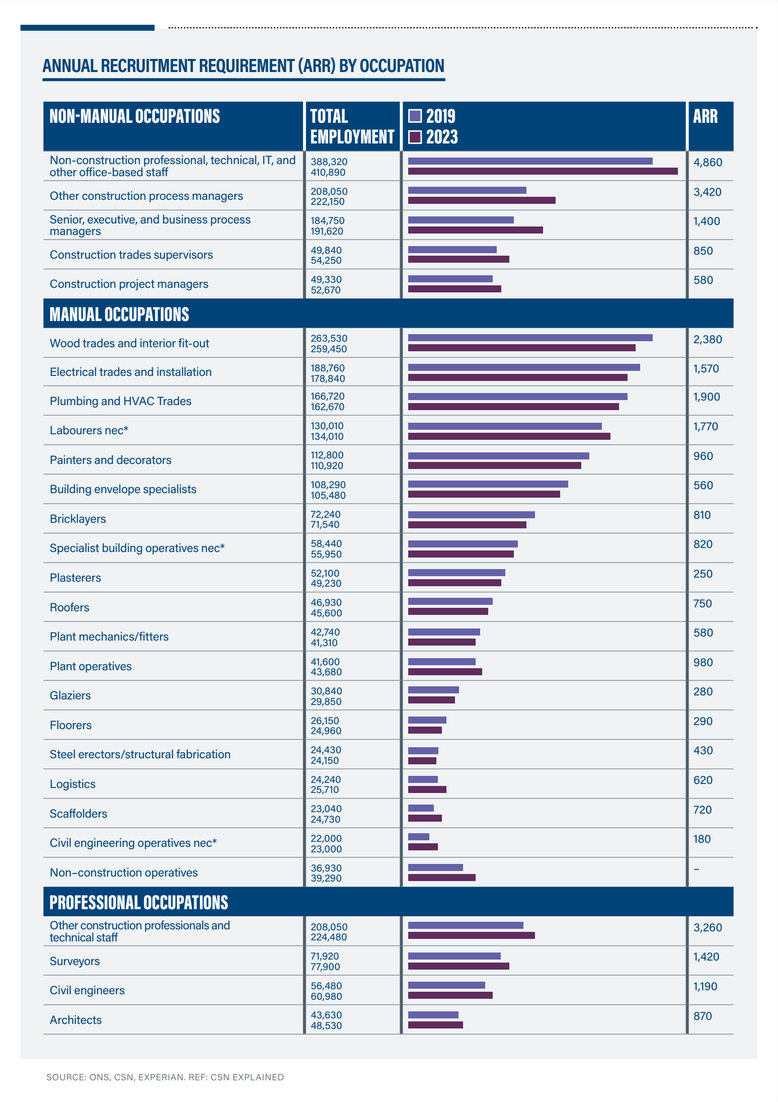
Political and Economic
- Impact of effective infrastructure and construction to support a growing economy
- Continuing/growing UK construction skills as a significant export industry
- Effective delivery of major projects increases public Return on Investment (ROI)
- Government can help reform employment status for tax and employment rights purposes

Technical
- Embrace digital tools and processes to drive productivity
- Improve construction's ability to drive out the benefits of technology at all stages – stop the historical 'lag' of construction behind other sectors and embrace new ways of working

Environmental
- More than almost any industry, construction can transform the way the built environment works with the environment
- The UK is legally bound to reduce emissions to net zero by 2050, and around half of all UK emissions can be influenced by construction
- Drive waste management elimination from design to delivery (whole life considerations)
- Reform building safety and competence to keep the built environment safe
- Reduce construction impact on the built environment in terms of increasing biodiversity and decreasing pollution

Future Demand

Our industry is wide and varied; the skills and occupations we need to support reflect this. The Construction Skills Network (CSN)[1] is a core source of data that drives our understanding of the demand for skills and we use this to focus our efforts on both the skills needed in the short-term, and the skills we believe we need to start developing now for the future.



ANNUAL RECRUITMENT REQUIREMENT (ARR) BY OCCUPATION

NON-MANUAL OCCUPATIONS	TOTAL EMPLOYMENT	2019 / 2023	ARR
Non-construction professional, technical, IT, and other office-based staff	388,320 410,890		4,860
Other construction process managers	208,050 222,150		3,420
Senior, executive, and business process managers	184,750 191,620		1,400
Construction trades supervisors	49,840 54,250		850
Construction project managers	49,330 52,670		580
MANUAL OCCUPATIONS			
Wood trades and interior fit-out	263,530 259,450		2,380
Electrical trades and installation	188,760 178,840		1,570
Plumbing and HVAC Trades	166,720 162,670		1,900
Labourers nec*	130,010 134,010		1,770
Painters and decorators	112,800 110,920		960
Building envelope specialists	108,290 105,480		560
Bricklayers	72,240 71,540		810
Specialist building operatives nec*	58,440 55,950		820
Plasterers	52,100 49,230		250
Roofers	46,930 45,600		750
Plant mechanics/fitters	42,740 41,310		580
Plant operatives	41,600 43,680		980
Glaziers	30,840 29,850		280
Floorers	26,150 24,960		290
Steel erectors/structural fabrication	24,430 24,150		430
Logistics	24,240 25,710		620
Scaffolders	23,040 24,730		720
Civil engineering operatives nec*	22,000 23,000		180
Non–construction operatives	36,930 39,290		–
PROFESSIONAL OCCUPATIONS			
Other construction professionals and technical staff	208,050 224,480		3,260
Surveyors	71,920 77,900		1,420
Civil engineers	56,480 60,980		1,190
Architects	43,630 48,530		870

SOURCE: ONS, CSN, EXPERIAN. REF: CSN EXPLAINED

[1] CSN covers contracting and professional services

The Need to Address the Skills Challenge Now

Technology and modern methods of construction are rapidly evolving the skill sets we require to keep pace, and the Government's renewed commitment to evolving the nation's infrastructure will require focus and energy from the sector to deliver. Regulation, particularly in response to the Grenfell tragedy, is placing greater focus on businesses delivering to the highest possible standards.

All of us are keenly aware of the responsibility we have to ensure the built environment vastly reduces its impact on the natural environment – the UK Government has been unequivocal on the contribution of construction in moving towards a zero-carbon society with the establishment of the Green Jobs Task Force. The net zero agenda presents both a major challenge in terms of updating skills across the sector, but also a massive opportunity for smaller firms in the retrofit work that will be created.

However, there are some ongoing, entrenched skills challenges in modernising the skill set of construction that need to be tackled:

- Employers are largely not recruiting and training the workforce with the skills they will need in the future as the industry modernises. This is due to inadequate levels of direct employment and short-termism related to lack of visibility of the pipeline of work, small margins and clients buying on cost not value

- Most clients (perhaps due to lack of awareness) do not demand modernised techniques such as offsite manufacture, digitisation etc., or they assume it is part of embedded business innovation within the supply chain

- Consequently industry continues to modernise very slowly and does not make the efficiency, productivity or quality improvements that the Government (through the sector deal) is looking for

This plan recognises that the skills system going forwards will be employer-led. To have impact we need to influence employer behaviours to balance individual employer 'wants' and broader industry-wide 'needs'. Co-ordinated action with employers, government, other key clients and the education sector through this Skills Plan is therefore required.

This plan is a plan for industry, by industry. It is the product of collaboration between the CLC, CITB, ECITB, FE, HE, BEIS and voices from across the industry to develop an approach to tackling the skills gap head on, once and for all. It provides an actionable, measurable blueprint for recruiting the right talent, training them to have the right skills, and ensuring that the sector as a whole is supported to develop and maintain the highest levels of competence.

It is a plan that attempts to balance what businesses in the sector want with what the industry needs as a whole, now and in the future. And it is a plan we need individuals, employers and representative organisations, and groups in Construction and the Built Environment sector to rally round.

The Core Skills Challenges

In order to improve the productivity of the construction industry and seize the opportunity for its wider contribution to the UK, it needs to improve the productivity of its main asset – its people. This means attracting talent by offering careers of choice and being a positive and fulfilling place to work and effectively upskilling, re-skilling and cross-skilling the workforce to work effectively and safely. In order to overcome these skills challenges, action across the sector, Government, education and others is required.

Careers

Together we can create an industry that is attractive to talent and bring those skills in through multiple routes

In the next four years we need to tackle the causes of hard-to-fill vacancies, where applicants lack the skills required and not enough people are being trained.

We need to:

- Change to take a long-term view of workforce skills, planning and embracing multiple skills supply routes (i.e. adults, job changers, industry changers)
- Make construction a sector of choice for young people through better career path information and more direct employment
- Enable access to the industry for all groups to improve diversity, this includes access to work experience opportunities

Standards and Qualifications

Together we can create the underpinning foundations for high-quality, transferable skills and pathways for learning

In the next four years we need to:

- Standardise the approach to developing sector-wide skills and knowledge to increase mobility across the industry
- Shift to focus on competence. Consider both "point in time" and ongoing need for development in all roles
- Tackle variation in training standards and qualifications – ensure training and education is to an agreed standard and available where needed
- Ensure that work-ready skills such as team working and time management are embedded into training

Training, Education and Development

Together we can enable high-quality training and development when and where needed that equips the workforce in current and emerging skills

In the next four years we need to:

- Grow the number of apprentices and enhance the routes to and through apprenticeships
- Improve the progression of FE learners into workers in the industry
- Demand training and education in the skills that are needed to deliver differently in the future, for example new technologies and methods (e.g. offsite). Create new jobs and the need to re-skill existing workers
- Demand innovation in the ways in which learning is delivered flexibly (time, place, pace and platform) including immersive, online and location

Culture and Working Environment

Together we can create an industry whose culture and operations make it a great place to work that retains talented individuals

In the next four years we need to:

- Drive a culture of innovation including the use of technology to drive productivity improvement
- Increase the levels of direct employment to improve the attractiveness of the sector and as a fundamental enabler of apprenticeships, career progression, upskilling, reskilling, competence and innovation
- Reform structural and contractual arrangements that lead to detrimental culture, which impacts on health and wellbeing

Post-16 Routes Into Construction

Department for Education

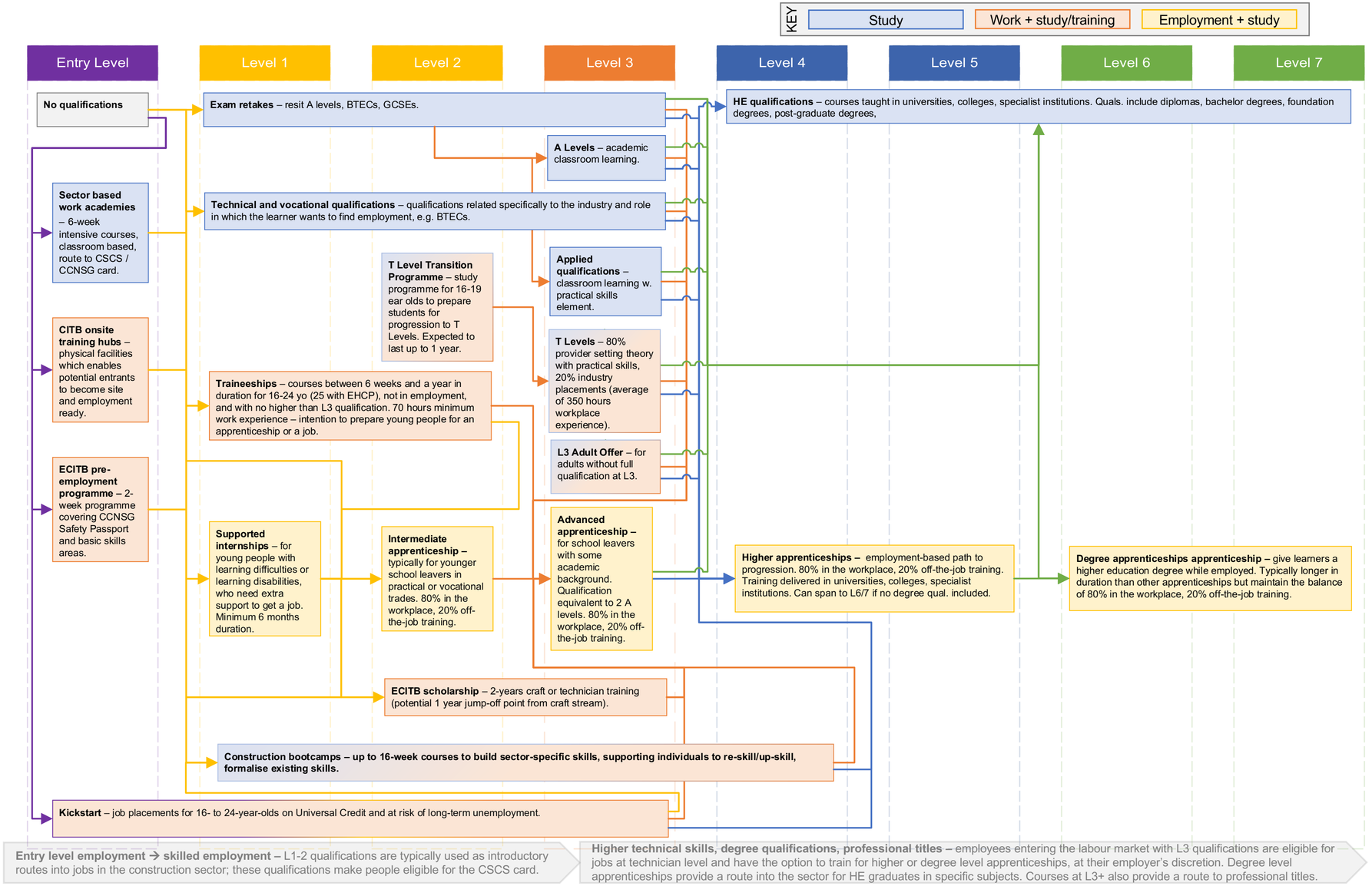
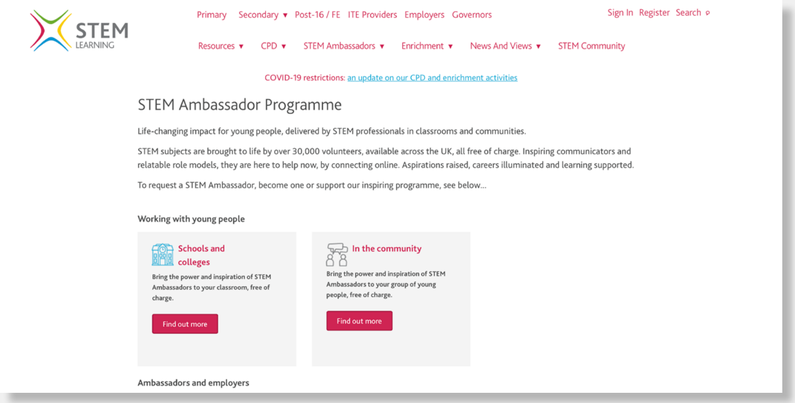


Diagram developed in collaboration with HMG through the Construction Skills Delivery Group. Used with the permission and with thanks to DfE and BEIS.

Attracting and Retaining Diverse Talent and Helping People to Join

A lot of the key programmes are in place. If we all get behind these and do our part, we can make great progress towards attracting and retaining the skills and talent the industry needs. Please support these key construction initiatives as we develop them further through this Skills Plan.

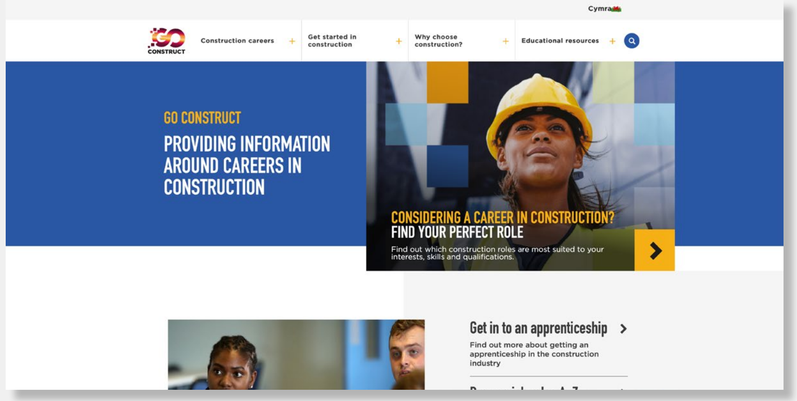
STEM Ambassadors



For entrants – A single, focussed programme to build understanding of construction careers.

For employers – Increasing awareness amongst new entrants and their influencers to attract the next generation to the sector as a career of choice. The more we join, the greater our reach to the next generation.

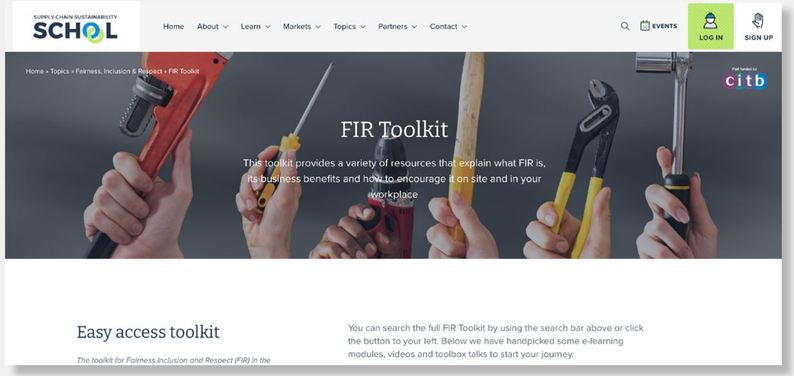
Go Construct



For entrants – A single place for accurate and timely careers advice and guidance.

For employers – Increasing awareness amongst new entrants. If we all collaborate and use it, it can become the place for construction careers information and signposting.

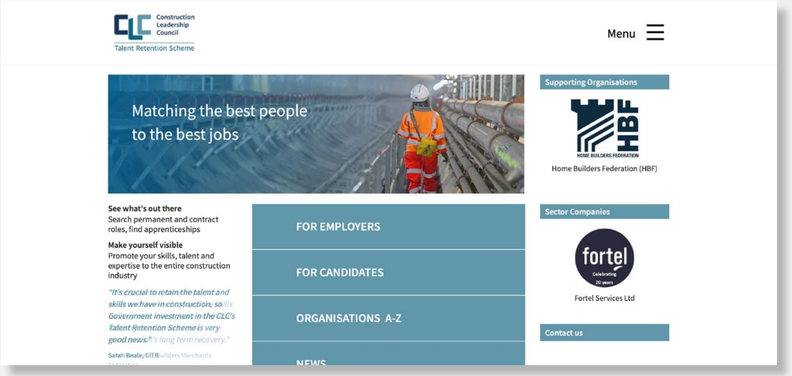
Fairness, Inclusion and Respect (FIR) Programme



For entrants and workers – Helping to create an industry you want to join and remain a part of.

For employers – This provides a common toolset for increasing understanding of the business benefits of Fairness, Inclusion and Respect, as well as how to embed effective working practices within organisations and their supply chains. If we all support it, this in turn leads to an industry better equipped to attract and retain a diverse workforce at all levels.

Talent Retention Scheme



For workers – A place to find new opportunities or find support in your current role.

For employers – If we all support it, this can become the clear and easily accessible place to find opportunities and promote talent. It provides a central site for opportunities of redeployment for workers already in construction, as well as to upskill and reskill people from other sectors.

The Skills Plan

Addressing Our Skills Needs

For the first year of this plan's lifetime we want to focus on the four key areas outlined here.

The following pages set out, for each challenge, the details of key actions that need to be achieved to meet them. Case studies have been included to demonstrate the work that is already underway and the progress that industry is already making.

1. Improve **access** to opportunities for all and **attractiveness** of careers

Enables

1.1 Support **access for all** industry to operate a more inclusive culture to encourage new entrants at every stage of their career and retain skilled workers

1.2 Make construction an **attractive career sector** of choice through better development, delivery and showcasing of the career development opportunities our varied industry offers

1.3 Strengthen support for **direct employment** as an enabler of apprenticeships, upskilling and attractiveness of careers

2. Boosting all routes into **industry**, including enhanced work experience provision for those in full-time FE and HE

Enables

2.1 Grow the number of apprentices and enhance the routes to and through **apprenticeships**, including the role of the Apprenticeships Levy (AL)

2.2 Improve the links between **FE** and employers, and the pathways from FE into apprenticeships and employment. Support the T Levels route

2.3 Improve the links between **HE** and employers, and the pathways from HE into employment

3. Competence: Shift to focus on competence through the development of sector-specific competency frameworks. Ensuring both "point in time", ongoing continuous professional development (CPD) and revalidation of competence

Enables

Develop **higher technical qualifications** to support progression

Health and Safety: Improve and embed higher standards of safety practices within the industry

Modernise standards and qualifications to deliver the skills our industry needs in the future (e.g. digital and behavioural)

4. Skills for a modernised industry: Up-skilling and re-skilling in the skills that are required to transform the industry. This will incorporate focus on both new technologies / methods, (e.g. off-site), and the requisite behaviours, (e.g. creativity, sustainability, and inclusion)

Enables

Skills to deliver **net zero** carbon targets through retrofit, new build and construction operations

Deliver skills to embed emerging **innovations** and **digital technologies** to improve efficiency, productivity, sustainability and building safety

And Progress is Already in Motion

- Improved **careers information** about how to join and progress through construction on the industry portal, **Go Construct**

- Started to align construction with the **STEM Ambassador** programme to broaden reach of influence in schools

- **Updated apprenticeship standards** to reflect the needs of employers

- Collaborated to influence the roll out of **T Levels** in Construction and Building Services Engineering

- Used key **migration research** to influence Government on post-Brexit migration rules to better meet the needs of the construction industry

- Published **Future Skills** research to spread understanding about what skills construction will need in the coming years

However, there is much more that now needs to be done to build on this progress.

Challenge 1.1: Access for All

Support the whole industry to operate a more inclusive culture to encourage new entrants at every stage of their career and retain skilled workers

Before the pandemic, CITB forecast the need for an extra 40,000 workers per year in construction to address the known pipeline of work up to 2025.

This need is partly generated by the rising age profile of the construction workforce. In addition, reduced access to EU migrant labour from January 2021 is expected to further increase industry's domestic recruitment requirement.

The impact of the pandemic and resulting recession has significantly reduced skills demand across industry. However, there will still be a 210,000+ recruitment requirement between 2021–2025.

Women, ethnic minorities and people with disabilities are still underrepresented in nearly all occupations in the Construction and Built Environment sector. There are challenges around equality of pay and progression, diversity in leadership as well as a lack of diverse role models for new entrants to aspire to. This is at least in part due to the recruitment practices of the industry, which repeat the process of direct recruitment from known sources, compounding the issue. This, together with a fragmented company-by-company approach to recruitment, makes it exceptionally difficult to reach a more diverse set of applicants.

Key sources:
https://www2.deloitte.com/content/dam/Deloitte/au/Documents/human-capital/deloitte-au-hc-diversity-inclusion-soup-0513.pdf

Path to Solving This Challenge

In order to make industry inclusive and attractive a number of steps are needed:

- Improve perceptions of potential new entrants and those who influence them in their career choices, e.g. friends, parents, peers and teachers
- Provide clear information about the career opportunities in construction and how to access, participate and progress
- Make the reality of working in construction inclusive and a sector of choice, to both attract and retain talent

Outcomes and Benefits

- Improved diversity enables both attraction and retention through a more inclusive culture and a more attractive sector to work in
- Improved retention saves unnecessary recruitment costs. With the average recruitment cost of £4,000* and a general average UK cost of replacing an employee and the resulting loss of productivity calculated at £30,000** we need to retain talent rather than letting it flow out of construction
- Innovation: when people feel included they feel more comfortable to share their ideas. Deloitte research identifies an 83% uplift in innovation when people feel included and that their employer is committed to diversity.

* Talent Retention Scheme work CLC
** ACAS, 2014

Actions and Owners

Improve perceptions of potential new entrants and those who influence them

1. Join **STEM Ambassadors** to provide practical input in schools, colleges and workplaces about the reality of construction and how to join, as well as showcasing the variety of construction roles. Ensure they are equipped with inspiring messaging, new careers materials and activities to help bring construction careers to life

Owner
CLC

Deadline
Target: Access to 7,000 STEM Ambassadors (targets for number of engagements to be set) by September 2021. Convert 1,700 into supported, active Ambassadors by 2024

Make the reality of working in construction inclusive and a sector of choice, to both attract and retain talent

2. Implement the **Fairness, Inclusion and Respect programme** through the supply chain to help construction operate within a more inclusive culture to encourage new entrants and retain skilled staff

Owner
CLC, supported by CITB

Deadline
Roll out FIR programme by June 2022. An additional 3,000 construction companies to engage with the FIR programme, 1,500 active FIR Ambassadors and 5,000 new learners by 2025

3. Commit to a common **diversity measuring and monitoring system** and set aspirational targets at all levels for recruitment, retention and progression of under-represented groups that reflects the demographic of the UK working population

Owner
CLC

Deadline
December 2022

4. Support **wellbeing and mental health services** through the creation and support of industry services, such as the Lighthouse Charity

Owner
CLC to promote and coordinate action

Deadline
Engagement plan operating by June 2021

Case Study:
How Ardmore Recruits and Retains a Diverse Workforce

Ardmore, a privately owned building contractor, believe that it is essential to recruit from the communities they are working in, especially when that is in the middle of a housing estate – giving back by employing the people most affected by their work.

Eilish Kwai, Employment Skills Manager, visits colleges and careers fairs to talk to people about construction and the opportunities for apprentices and graduates with Ardmore Group. If people are interested, she tells them "if you are serious, email me" and if they do, she finds them a work experience placement. If they work hard and have the right attitude she finds them a role and supports them.

This approach has brought fresh new talent into Ardmore and – as a result – its diversity profile is significantly more diverse than industry averages. Its profile is younger, more female and more BAME.

These impressive diversity statistics are achieved by:

- Accessible recruitment processes
- Local recruitment
- Outreach to colleges and job fairs
- Four-week work placements
- A culture of mentoring

Ardmore believe that the business benefits too, as their inclusive and collaborative culture refreshes the knowledge and skills of their mentors and retains valuable talent.

For more information visit the **Supply Chain Sustainability School website.**

> Ardmore believe that it is essential to recruit from the communities they are working in – as a result – its diversity profile is significantly more diverse than industry averages.

Challenge 1.2: Attractiveness of Careers

Make construction a sector of choice through better development, delivery and showcasing of the career development opportunities our varied industry offers

The breadth of career opportunities in our industry is massive and we need all of our roles filled from groundworkers to architects to ground source engineers to deliver the built environment.

Latest data from ONS shows construction vacancies at 29,000[1] and this is on top of an Annual Recruitment Requirement (ARR) of over 40,000 per year[2].

There are opportunities for people to join our sector as new entrants, to re-join or to join from other industries. We need to make the opportunities clear and visible and provide the necessary bridges in some cases through work experience or placement opportunities to give people the opportunity to start their career in construction.

Path to Solving This Challenge

We need to recognise the diverse routes into our industry and the variety of career options available to people within our industry. This means we need to:

- Provide clear information on the routes to join and to progress (for example, see p.15)
- Provide mechanisms for people to use their skills in one area to build upon and move through or across to other areas through a modular approach
- Ensure that the vast array of opportunities are made clear to potential new entrants but also to those in other sectors to attract talent of all ages

Outcomes and Benefits

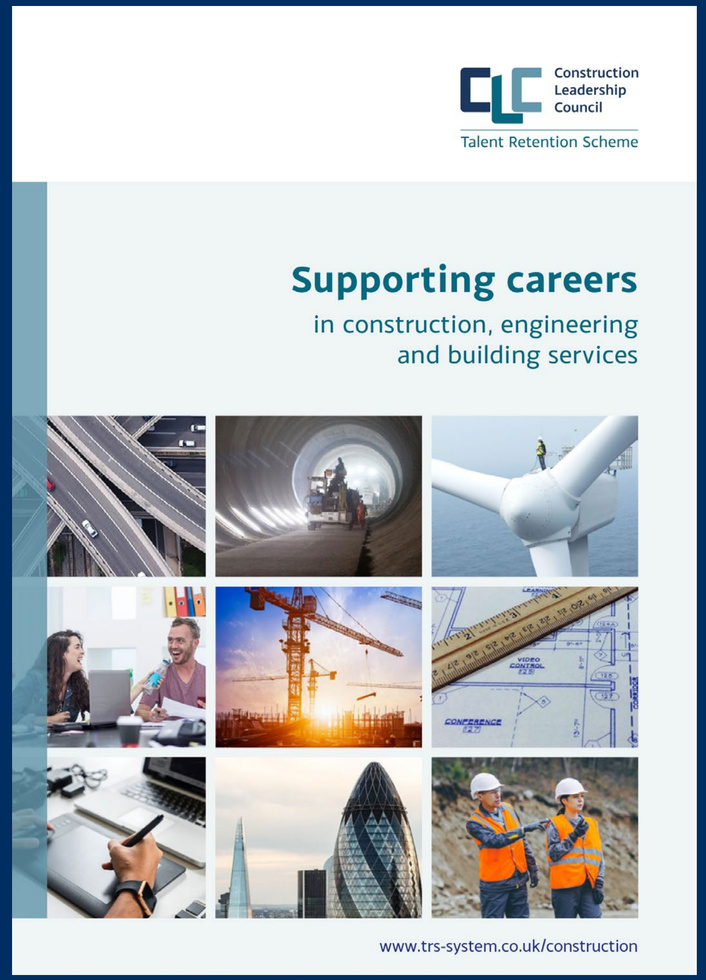
- Improved career visibility attracts talent
- Improved careers opportunity retains talent
- Improved retention of talent saves unnecessary recruitment costs and productivity dips

Actions and Owners

Provide clear information about the career opportunities in construction and how to join and progress

1. Implement the national **Talent Retention Scheme** to retain talent within the industry through shared vacancy approach	**Owner** CLC **Deadline** The Construction TRS target to redeploy 6,900 workers over a five year period (1% redeployment rate). 2,500 supported jobs in 2024/25	
2. Implement the **Work Place Promise** of ongoing career development and support through Consultancy and then into other areas too	**Owner** ACE **Deadline** ACE to develop and roll out by September 2021	
3. Clear **information about career paths** and how to join and move through careers in construction provided on industry portal. To help new entrants, career changers and returners into jobs in the industry, with the support to upskill or retrain if necessary	**Owner** DfE/CLC **Deadline** Ongoing	
4. Supporting Kickstart and Skills Bootcamps to provide work placements for entrants to **gain skills** and **opportunities** to enter industry	**Owner** CITB/DfE **Deadline** September 2021	
5. Agree a **standard for work experience** for industry to operate to. Increase the quantity and accessibility of high-quality work experience placements	**Owner** CITB **Deadline** June 2021	

[1] Reference: ONS January 2021
[2] Reference: CSN



Case Study:
Building a Strong Pool of Talent for Construction

Recognising the critical importance of retaining a buoyant pool of talent across the construction industry, Kier Group was one of the first companies to join the Construction Talent Retention Scheme (CTRS) shortly after its launch in July 2020.

Supported by powerful technology, the CTRS enhances the range of recruitment tools that Kier uses to fill a large number of vacancies every year. Since joining the scheme, Kier has advertised vacancies via the portal and received almost 100 applications for roles as diverse as quantity surveyors to site managers and planners. With the portal's direct interface to Kier's own recruitment software, it is easy to both upload jobs and to process applications.

The CTRS supports the whole construction industry and plays an important role in attracting new talent into the sector. In addition, as a collaborative platform that is free for all businesses and candidates to use, it serves to unite the construction sector in its collective aim to recruit and retain the best talent.

Paul Thornton, Head of Talent Acquisition, Kier Group:

Kier have been involved with advertising vacancies since the inception of the Construction Talent Retention Scheme and have found it to be a vital platform in attracting new talent. Availability of skills will be increasingly important to the sector as we continue to adapt to challenges including COVID-19 and Brexit over the coming months. Ensuring we keep talent within the industry will be critical to delivery, particularly in light of the increased investment by UK Government through the National Infrastructure Strategy and the CTRS should be at the heart of our planning for the industry as a whole.

> The Construction Talent Retention Scheme supports the whole construction industry and plays an important role in attracting new talent into the sector.

Challenge 1.3: Direct Employment

Strengthen support for direct employment to improve opportunity, culture and skills investment

CLC's Industry Recovery Plan recognises direct employment as 'an enabler of apprenticeships, digital upskilling and competence'.

Self-employment has rapidly increased since 2008 and is over 35% of the whole construction workforce, heavily concentrated on site. Research correlates the decline in trade apprenticeships with the growth in labour-only subcontracting and agency work.

Self-employed workers have more accidents and poorer occupational and mental health outcomes. Secure employment is vital to attracting diverse talent, creating an inclusive culture and supporting social mobility.

Direct employment delivers a highly-engaged, competent workforce, increased productivity and higher value. It is reported to overcome skills shortages, spiralling labour costs, poor productivity and quality, avoiding low uptake of new work processes and technology. It is mandated on major infrastructure projects, reducing risks around delivery certainty, reputation and quality.

Path to Solving This Challenge

There is no simple or quick solution given the wide range of factors influencing the entrenched industry structure. A long-term, multifaceted approach is required:

- Supportive Government regulation concerning procurement, taxation and employment status
- Widespread use of value procurement models
- Raising industry awareness of the benefits of direct employment and helping employers and individuals overcome challenges

Outcomes and Benefits

- Increased proportion of directly employed construction workforce
- Increased investment in apprenticeships
- Improved safety, wellbeing, quality, productivity and innovation
- Improved perception of construction careers

Actions and Owners

Use of value procurement models that reward direct employment

1. Work with Government to **amend procurement policies to incorporate a mandate for direct employment**, supporting the implementation of the Construction Playbook

Owner
CLC/Government

Deadline
April 2022

2. Change procurement practices to demand direct employment within supply chains through pre-qualification questionnaires and tender criteria. Develop model wording

Owner
CLC

Deadline
December 2024

Supporting businesses to transform their employment models

3. Liaise with **Government's employment status team** to obtain greater visibility of future policy intention. Build industry awareness and develop resources to support businesses of all sizes

Owner
CLC

Deadline
April 2022 with commitment in place by December 2022

4. Collate **direct employment good practice** including related procurement policies, contractual requirements and monitoring and enforcement mechanisms

Owner
CLC

Deadline
October 2021

Raising industry awareness of the benefits of direct employment

5. Engage widely with industry to build an **evidence base** focused on realising the benefits of direct employment and overcoming challenges

Owner
CLC

Deadline
April 2022

Case Study:
ECA Loan Labour Scheme

The suspension of almost all electrical work at Gatwick Airport during lockdown presented a major challenge for Leading Electrical Services Ltd., most of whose work is Gatwick related.

Company director Sandra Rumbold-Koch feared for the future, but then spotted an email from her trade association, Electrical Contractors' Association (ECA), explaining that another member firm in the region was looking for short-term 'top-up' workers under ECA's long-established Loan Labour Scheme. ECA put her in touch with Delron Services Ltd. and the two firms agreed to the loan of four electricians for a ten-day period over the October half-term break – enabling Delron to complete an accelerated installation contract at a school in Croydon.

For Sandra, this and four other loan arrangements organised through ECA have helped the firm 'battle our way through' – with work prospects now, at last, looking up.

Delron's Technical Manager Ben Scofield was also very happy with Sandra's electricians: "They all got on with the job straight away. Everything went in quickly and well". After some bad experiences with employment agencies, he sees real advantages in using direct employees on a loan arrangement: "The fact that their employer wants to keep hold of them – you know you are getting decent guys."

Further information about the ECA Loan Labour Scheme can be found on the ECA website.

After some bad experiences with employment agencies, Delron's Technical Manager sees real advantages in using direct employees on a loan arrangement

Challenge 2.1: Routes into Industry – Apprenticeships

Boosting all routes into industry, including enhanced work experience provision for those in full-time FE

Grow the number of apprentices and enhance the routes to and through construction apprenticeships. The sector employs 2.7m people (about 9% of the UK workforce) and has a number of challenges, one being that 32% of the workforce are over 50, only 10% are under 25. We need to continue to deliver 25,000 new apprenticeships every year, whilst also improving diversity in the sector.

In order to continue to strengthen and support this key route of entry, CLC will work on behalf of industry to create a sustained partnership between the DfE and the construction sector to set annual and multi-year targets for increasing apprenticeship numbers, increasing the number of higher level apprenticeships, to overcome barriers to take-up and to increase quality and completion rates. By continued work together we can build the future skills base.

Key sources:
1. CLC Apprenticeships sprint group asks paper (2020)

Path to Solving This Challenge

- Promote accelerated routes into apprenticeships through FE
- Increase construction apprenticeship retention, attainment and completion
- Reform the Apprenticeship Levy (AL) to support the post-pandemic recovery of construction apprenticeships as a critical pipeline to meet the skills needs of industry

Outcomes and Benefits

- Recovery of apprenticeship starts in 2021
- Increasing numbers of annual apprenticeship starts in future
- Reformed Apprenticeship Levy transfer system, enabling construction employers to pool Levy funds to strategically address industry skills needs

Actions and Owners

Reform the Apprenticeship Levy

1. Recommend that Government **extends the existing incentive scheme** to end of 2021

Owner
Government

Deadline
September 2021

2. Support Government proposals to create pledge function and matching service for Apprenticeship Levy

Owner
Government/CITB/AoC/BACH

Deadline
August 2021 (to be implemented as part of Project Speed work)

Promote accelerated routes

3. Develop an accelerated route from **FE into construction apprenticeships** through recognition of prior learning

Owner
Government/CITB/AoC/BACH

Deadline
August 2021

Increase construction apprenticeship retention, attainment and completion

4. Support provision of **pre-apprenticeship experiences** to develop a brokerage service, as well as best practice to support construction SMEs to offer job experience placements through the Kickstart scheme's Gateway Providers

Owner
CITB

Deadline
2021-2024

5. Make all **apprenticeship opportunities available on apprenticeships.gov** (which will be supported by the TRS)

Owner
Industry

Deadline
May 2021

Challenge 2.2: Routes into Industry – Further Education

Boosting all routes into industry, including enhanced work experience provision for those in full-time FE

To strengthen the links between FE and employers, improve the pathways from FE into apprenticeships and employment, and to develop the T Levels route. More people than normal are expected to start FE construction courses, due to a lack of apprenticeship recruitment opportunities as the SMEs who employ 72% of apprentices continue to recover. To maintain access to a skilled workforce, industry will need to increase the number of learners it converts from FE courses. Currently, of the approximately 36,000 students per year who undertake construction courses in FE, only 41% move directly into an industry job or apprenticeship.

Key sources:
1. CLC FE Apprenticeships sprint group asks paper (2020)

Path to Solving This Challenge

- Provide high-quality employer work placements to support Year 1 FE learners
- Facilitate closer working between FE providers and employers

Outcomes and Benefits

- Increased number of learners progressing from FE courses into employment, including apprenticeships, reflecting the skills needs of industry
- FE providers and employers collaborating to ensure courses meet the skills needs of industry

Actions and Owners

Work placements to support Year 1

1. Develop a **construction traineeship** to enable learners to move from FE into an accelerated apprenticeship or employment	**Owner** Government/CITB/AoC/BACH **Deadline** Launch first traineeship (bricklaying) in 2021
2. Ensure sufficient **funding and resources for colleges and employers** and bring together colleges, employers, training providers and all those required to work together to ensure the collective success of traineeships	**Owner** Government **Deadline** 2021

Facilitate closer FE and employer working

3. Provide **industry-relevant guidance** and support for employers, providers and learners, to support increased engagement and improve consistency and quality, building on existing resource and research	**Owner** CLC/CITB/TESP **Deadline** Autumn 2021
4. Support Government to increase the quality of technical education and **streamline Level 2 and 3 qualifications.** Ensure employers are kept informed and supported through the transition	**Owner** CLC **Deadline** Summer 2023
5. Industry to work with FE colleges to agree how to increase accuracy of skills needs forecast by location, as well as discipline to support the right **provision of FE training in the right location at the right time**	**Owner** AOC/BACH/CITB **Deadline** April 2021
6. Develop meaningful **employer engagement** across FE courses including through work experience	**Owner** CLC/AOC **Deadline** Action plan spring 2021

Challenge 2.3: Routes into Industry – Higher Education

Ensuring that the HE route becomes closer to industry and that graduates have the skills needed for the future

Compared to the overall industry, HE provision is performing well in terms of encouraging diversity. However, much more can be done as diversity is still low compared to the wider HE sector (HESA data shows). We need to be sure that our HE graduates at all levels (undergraduate, postgraduate and doctoral) are able to progress into fulfilling careers, supported by the relevant continual professional development so that they stay in construction. Our graduates are valuable to other sectors too so we need to ensure that HE conversion rates remain strong. We also need to forge better links with employers to improve the availability and effectiveness of work placements and engage better with other disciplines to produce the rounded managers and leaders of the future for construction.

Key sources:
1. CLC FE Apprenticeships sprint group asks paper (2020)

Path to Solving This Challenge

- Improve access and participation to bolster and retain a diverse intake of talent
- Improve links to employers to increase the capacity and effectiveness of work placements and to input to curricula design
- Ensure the right mix of competence is being delivered: both 'traditional' competencies but also enhanced technical, digital and modern methods of construction, as well as health and safety

Outcomes and Benefits

- Improved access and participation leads to a more resilient future workforce
- Aligned action enables a cross industry approach to support marketing and recruitment – selling all professional disciplines
- Improved effectiveness of work placements with employers leads to more work-ready graduates
- Improved range and depth of competence creates a more employable and agile cohort of graduates, to lead and deliver the change required in the industry

Actions and Owners

Improve access and participation to bolster and retain a diverse intake of talent

1. Every HE provider to review, enhance and embed their plans for **Fairness, Inclusion and Respect** within their recruitment criteria

Owner
HE Providers

Deadline
June-2022

Ensuring the right competencies and mix of competence is being delivered

2. Catalysing Higher Education institutions (HEIs), industry and professional bodies to develop **realistic and achievable curricula design,** delivery and competencies to ensure that students, graduates and existing professionals are gaining the relevant skills both now and for the future. CLC to drive collaboration with industry to overcome the experience gap within providers to teach future/productivity skills

Owner
CLC/CIC/HEIs

Deadline
June-2022

Improving links to employers

3. Improve availability of **appropriate work experience** to facilitate work readiness of learners: effective industry work placements (including work experience, work shadowing, and supporting classroom delivery) driven by better linkages between initiatives for interface between employers, schools, FE/HE. A national strategic sectoral 'one-stop' portal allowing contextualisation to a local level is needed with CLC to establish a forum for HE/FE and industry to take this forward with aligned action

Owner
CLC

Deadline
June-2021
(establish forum)

4. Construction Industry Council (CIC) and HEIs to assess **accreditation routes into the professions** for those on single discipline courses, but also for other cognate disciplines to produce hybrid managers of the future

Owner
CIC/HEIs

Deadline
June-2023

Case Study: **T Levels**

Jayne Sheehan, Director of Engineering, Construction and Building Technology, Suffolk New College:

"We made a decision to be involved in the first wave of T Levels as we believe that the 80/20 model of classroom to workplace was a great model and brilliant opportunity for students. We were very involved in the planning of the T Level, working closely with the Awarding Body in relation to the technical content, with employers for the industry work placements and finally with other colleges who are offering the same T Level.

Our students are enjoying the challenge of the qualification and have started virtual work experience with Morgan Sindall, where they are able to practise their design skills which will help with their employer set project at the end of the year."

Sam Corneby, Construction T Level student, Suffolk New College:

"When I came to the end of my studies, I didn't think that university was the right path for me and already had an idea that I wanted to go down the technical education route.

After doing some research, I found out about T Levels and the idea of the work experience side of the qualification really appealed to me – so I decided to go for it.

I'm enjoying the course and actually think I am thriving in all areas, so I know that it's definitely been the right decision."

> "I think the industry placement is going to really help me when looking at my next steps. It is a brilliant qualification and I'm enjoying being able to put theory into practice."

Challenge 3: Competence of Individuals

Shift to focus on competence, including ongoing CPD, through industry-led development of sector-specific competence frameworks

In response to Dame Judith Hackitt's report, Building a Safer Future, the CLC's ambition is that everyone involved in any aspect of the design, specification, delivery and maintenance of the built environment is competent to undertake their role and able to complete their work in line with the relevant standards. Individuals working in the built environment should hold, or be working towards, a suitable industry recognised qualification, and be able to demonstrate relevant, up to date skills, knowledge, and appropriate behaviours. In accordance with its position on Industry Card Schemes, a card, carrying the CSCS logo, will be required by those undertaking a construction occupation.

The CLC will provide the leadership required to ensure the delivery of the recommendations in Setting the Bar which are expected to achieve this vision.

Path to Solving This Challenge

- Work with the Building Safety Competence Steering Group's Working Group 2 (WG2) – Installers in particular, to ensure the new overarching framework for competence of individuals is implemented and applied in a consistent and robust way
- In parallel with the above, coordinating with industry groups and public authorities in Scotland, Wales and Northern Ireland to ensure consistency of approach across the UK's internal market

Outcomes and Benefits

- The key objective is to ensure the industry transitions successfully from a (mostly) qualified workforce to a fully competent one
- This is not a merely technical exercise, but part of a wider behavioural and cultural transformation of the industry. A more rigorous regime for individual competence will also support other Skills Plan objectives, such as embedding higher safety standards, growing apprentice numbers and strengthening direct employment

Actions and Owners

Supporting WG2 – Installers and each installer discipline to develop sector specific competence frameworks in line with the overarching competence framework for individuals and Working Group 2's own recommendations.

1. Establish close and **regular liaison** between CLC and both the Building Safety Competence Steering Group and WG2 – Installers. To include setting up of joint CLC/WG2 Planning and Communications sub-group	**Owner** CLC Taskforce **Deadline** February 2021 (completed)	
2. Assist Working Group 2 preparations for sector competence framework pilots	**Owner** Joint CLC/WG2 Planning and Communications sub-group **Deadline** June 2021	
3. Also, as part of these preparations, ensure **effective dialogue with priority sectors** and support wider industry and stakeholder engagement	**Owner** Joint CLC/WG2 Planning and Communications sub-group **Deadline** June 2021	
4. Support pilot groups in developing first wave of sector-specific competence frameworks	**Owner** Joint CLC/WG2 Planning and Communications sub-group **Deadline** December 2021	
5. Drawing on pilot phase, **finalise toolkit to be used for all further installer competence framework**	**Owner** Joint CLC/WG2 Planning and Communications sub-group **Deadline** December 2021	
6. Roll out **competence frameworks across all occupations** in an agreed priority order by working with industry bodies	**Owner** CLC **Deadline** Competence frameworks in place in all areas by 2024	

Case Study: **TESP Experienced Worker Assessment**

An apprenticeship remains the preferred route for qualifying as an electrician, but the approximately 6,000 electrical apprentice vacancies available each year are over-subscribed.

This leaves many hopefuls trying alternative entry routes – for example, full-time courses, short courses and learning 'on the job'. Some apprentices also fail to complete and remain part-qualified.

The Electrotechnical Skills Partnership's (TESP) Experienced Worker Assessment (EWA) enables individuals with at least 5 years' relevant experience to achieve fully-qualified electrician status through an assessment process aligned to the apprenticeship benchmark.

The process typically takes 3–18 months and includes:

- A self-assessment 'Skills Scan', to confirm suitability and identify knowledge or skills gaps
- Validation of evidence with a training provider and agreement of an individual assessment plan, recognising prior knowledge/experience
- On-site assessment of knowledge and performance
- Completion of the 'AM2E' assessment, which mirrors the apprenticeship End Point Assessment

The EWA upgrades an earlier JIB scheme which, over five years, saw around 3,000 individuals assessed to the industry standard. Further EWA arrangements are currently in development for other electrotechnical occupations, including panel building, network infrastructure, building controls and fire, emergency and security systems.

For details, **visit the TESP website**

Experienced Worker Assessment (EWA) enables individuals with at least 5 years' relevant experience to achieve fully qualified electrician status

Challenge 4: Skills for a Modernised Industry

Make skills available to transform the industry, leading to improved productivity, quality and the delivery of net zero.

In delivering skills for a modernised industry, and in line with the ambitions contained within the Construction Sector Deal, this initiative will support targets for a 33% reduction in the cost of construction, and the whole lifecycle cost of assets, along with a 50% reduction in the time taken from inception to completion of new builds. In addition, our plan will support delivery of net zero targets and enable the enhanced industry quality performance.

Path to Solving This Challenge

Deploy commonly understood and embedded standards, and statements of expectations and supporting structures that enable education, career training, learning and development for the following priorities:

- **Skills for Smart Construction:** Develop skills aligned to smart construction across the buildings' lifecycle (project initiation, design, delivery and operation) that enable a modernised industry
- **Net Zero:** Develop the skills and approaches to enable industry to meet net zero commitments across the built environment
- **Digital Transformation:** Develop more widespread digital and data analytics skills to underpin future collaboration and productivity improvements within the sector. This includes incremental change in SMEs too; developing a workforce that has the skills to interpret data and use key planning tools. Promote lifelong CPD activities to accelerate understanding of technology across all levels and roles engaged in the sector
- **Skills for RMI:** Strengthen skills in industry to support the repair, maintenance and improvement of existing buildings, particularly in relation to retrofit and traditional buildings
- **Collaborative Skills:** Prioritise non-technical skills development, enabling all individuals to work effectively across teams to deliver digitally enabled projects, whilst creating working environments which advance industry working cultures and deliver improved diversity
- **Next-generation Learning:** Enhance education and training provision, as well as management, using modernised technologies and methods

Outcomes and Benefits

	Has potential to contribute to achieving outcome		
	Productivity	**Quality**	**Net Zero**
Skills for Smart Construction	✓	✓	✓
Digital Transformation	✓	✓	✓
Skills for RMI	✓	✓	✓
Collaborative Skills	✓	✓	✓
Next-generation Learning	✓	✓	✓

Key sources:
1. The CLC Future Skills Report 2019
2. The CLC Roadmap to Recovery 2020
3. CLC Smart Construction, A Guide for Housing Clients 2018
4. CITB research, including:
a. Building Skills for Net Zero (draft, 2020)
b. Unlocking Construction's Digital Future (2018)
c. Faster, Smarter More Efficient: Building Skills for Offsite (2017)
d. A New Reality: Immersive Learning in Construction (2017)
5. The draft CLC Skills for Recovery Plan 2020
6. Input from CLC Recovery Groups
7. ACE Future of the Workplace 2020

Definitions:
1. Smart Construction: constructionleadershipcouncil.co.uk/wp-content/uploads/2018/10/181010-CLC-Smart-Construction-Guide.pdf

Challenge 4: Skills for a Modernised Industry

Actions and Owners

Skills enabling modernisation

1. Through research, understand future skills needs for **Smart Construction and net zero,** including the need for aligned behaviours and incorporating focus on inclusion and diversity

Owner
CITB
Supported by
CLC/TESP/ECITB/ACE/CIH
Deadline
2021

2. Promote **positive case studies** which identify successful deployment of modernised skills delivering improved productivity, quality and net zero initiatives

Owner
CLC
Supported by
CITB/Industry/TESP/ECITB/CIH
Deadline
2021/Ongoing

3. Utilise links to the established **CLC Centres of Excellence** to develop strong relationships (e.g. tech companies/InnovateUK/think tanks/FE and HE institutions) which enable fully integrated tech solutions to be developed and deployed with accompanying accredited upskilling packages

Owner
Working Group
Supported by
Industry
Deadline
2024

4. Clearly define how different **career pathways** can support development skills for a modernised industry, and provide an understanding of how to enable these professional pathways, along with definition of what non-technical capabilities are needed in certain future roles

Owner
ACE
Supported by
CIC/CLC
Deadline
2021

Stimulate and increase skills demand for a modernised industry

5. Government/major clients to leverage procurement to encourage and reward the use of **Smart Construction methodologies,** bolstered by investment in direct employment practises

Owner
Government/Major Clients
Supported by
CLC
Deadline
2021

New entrants to a modernised industry

6. Update **routes to entry and new entrant industry standards and qualifications** for Smart Construction and net zero. Funding to be made available to accelerate adoption across apprenticeships, T Levels, and full-time FE and HE provision

Owner
CLC
Supported by
IfATE/Industry/CITB/ Representative Industry, Professional and Academic Bodies
Deadline
2021

Modernise education and training content

7. Develop and deliver **Net Zero and Smart Construction training content for existing and new industry roles** (e.g. digital designers/ multi-skilled technicians) and embed into standards and relevant qualifications

Owner
CITB
Supported by
CLC/TESP/ECITB/Industry
Deadline
2022

8. CITB to facilitate development of training opportunities to provide the **complementary skills** necessary to enhance traditional delivery roles by embracing progressive digital, technical and collaborative practises

Owner
CITB
Supported by
CLC/TESP/ECITB/Industry
Deadline
2022

9. Support activity to review and update existing apprenticeship standards and technical qualifications to help achieve the **Government's goal of net zero carbon emissions by 2050**

Owner
CLC
Supported by
IfATE/TESP/ECITB/Industry/ CITB/Representative Industry, Professional and Academic Bodies
Deadline
2022

10. Support the development of construction **higher technical qualifications** (Levels 4 and 5) to improve career progression opportunities

Owner
CLC
Supported by
IfATE/TESP/ECITB/CITB/ Representative Industry, Professional and Academic Bodies
Deadline
2023

Mechanisms for delivering innovative learning

11. Demand innovation in the ways in which **learning is delivered flexibly** (time, place, pace and platform) including immersive and online; making funding available to attract investment

Owner
CITB
Supported by
CLC/TESP/ECITB/Representative Industry, Professional and Academic Bodies
Deadline
2022

Case Study: **Investment in New Skills Will Ensure UK Construction Continues to Innovate**

We all recognise we have a skills shortage in our industry which needs to be tackled, not only through recruitment, but in upskilling hundreds of thousands of employees across construction.

The benefits of adopting Smart Construction and a 'design for manufacture' approach are clear, but they require investment across the sector in three key areas.

1. We need to focus on recruiting people with the requisite skills, or invest in training those individuals to develop the required skills

2. A more collaborative approach with specialist sub-contractors and changing the focus from lowest cost to best value will ensure that Smart Construction and design for manufacture become standard practice

3. We need investment in education. Without face-to-face advice, pupils are denied access to the full range of exciting academic and vocational options available. Only by focusing on recruitment, procurement and education can we continue to meet our industry's challenges

> At NG Bailey, we spend more than £3m a year on training and development.

For example, our offsite manufacture pre-employment screening includes a series of tests focused on a candidate's manual dexterity and 3D perception. These skills are then harnessed and weaved into bespoke training modules. This approach ensures we provide the trainees with hands-on experience and knowledge so they join the offsite manufacture assembly line quicker and at a higher competency level. Our employees then embark on a 13-month Business Improvement Technique course that sees the employee gain a relevant qualification.

We Must All Play Our Part

	Evidence Base (Enabling)	Careers	Standards and Qualifications	Training and Development	Culture and Working Environment
	Together we can understand the skills supply and demand needs, drivers and issues, including the structure of the industry	**Together we can create an industry that is attractive to talent and bring those skills in through multiple routes**	**Together we can create the underpinning foundations for high-quality, transferable skills and pathways for learning**	**Together we can enable high-quality training and development when and where needed that equips the workforce in current and emerging skills**	**Together we can create an industry whose culture and operations make it a great place to work that retains talented individuals**
Cross Industry Bodies will…	Bodies (inc. CLC) will encourage changes to the structure of the industry and the move from contractor to employed basis. They will also provide cross industry insight on the changing nature of work in the sector	Bodies (inc. CLC) will act as a change agent and facilitate careers work across partners	Bodies (inc. CLC) will endorse CITB's lead facilitation role in standards and help leaders of industry to engage with standard-setting. CITB will work with industry and other bodies, such as IfATE who lead on apprenticeships standards in England, to set standards, define competence and signpost to suitable training	Bodies (inc. CLC) will facilitate training and a common approach across the sector and will share and promote emerging needs to and on behalf of the sector. CITB will use funding from the Levy to fill gaps in training provision and to positively influence training	Bodies (inc. CLC) will facilitate open conversations about barriers and needs for the industry to change – holding up a mirror to industry
Government will…	Government will share data with construction partners to enable them to understand and improve the impact of their work	Government should ensure influencers and young people have access to information, advice and guidance (IAG) about the full range of options including construction, and give access to destination data	Government should support CITB's role in bringing together employers, industry bodies and stakeholders to collaboratively set standards (inc Apprenticeships in England) and as client should be an early adopter of demanding agreed competence approaches	Government should provide the appropriate funding for the sector, create a skills policy that recognises the sector's needs and provide stability around its plans. As client, it can drive uptake of new methods of construction and good practice in development of the workforce, e.g. use of apprentices	Government should support the industry in modernising its working practices and broadening its appeal through supporting the industry to change
Employers will…	Employers will share data and input to the evidence base through participation in research, be open to future needs and changes, and support the removal of barriers to upskilling	Employers will address reasons why construction is not attractive to people by making positive changes to working practices. They will provide access to work experience opportunities, will adopt the Fairness, Inclusion and Respect (FIR) toolkit and encourage use throughout their supply chains	Employers will participate by feeding in requirements, providing feedback and supporting standards as the route to a quality workforce, as well as demanding competence assurance throughout the supply chain	Employers will invest in the training and development of their workforce. They will demand value for money, as well as quality and efficiency of delivery as an informed consumer of training. They will invest their time in providing feedback and input	Employers will recognise the need to change and lead the culture change within their own industry and demand fairness, inclusion, respect and safety throughout the supply chain
Stakeholders and Delivery Partners will…	Stakeholders will collaborate to ensure a consistent approach and obtain maximum impact	Stakeholders will join the industry with one voice and disseminate careers information and messages	Stakeholders will recognise the unique nature of construction and the need for high standards in the built environment's people	Stakeholders will help to deliver training, education and development using the latest techniques and best practice from other sectors	Stakeholders will support the industry to change, sharing best practice from other sectors and will recognise the challenges industry faces in adopting changes

What Happens Now?

This plan has set out clear actions to address the biggest challenges we face to improve the skills of our construction workforce. The CLC People and Skills Network will collaborate with the stakeholders and partners needed to ensure we consistently and effectively move forward as one industry.

We will update our progress against this plan with regular, published updates. We will also refresh the plan annually, or sooner if the skills environment changes and we believe new actions are needed to achieve our collective ambition.

With your support, we will work through these challenges together and help build a workforce that is equipped to deliver the built environment we all want to be a part of.

Case Study: **Supply Chain Sustainability School**

The Supply Chain Sustainability School is a world class collaboration between 108 clients, contractors and the CITB who fund the School and together develop and deliver free training that equips their suppliers with the skills to enable a more sustainable built environment.

Whilst 2020 has brought challenges, the School's online learning platform has continued to engage with industry to deliver a high quality, compelling and agile training programme. Since April the School has doubled the amount of learning it has delivered:

1. 286 virtual training sessions have taken place
2. 6,700+ learners, 62% from SMEs, have attended learning to support the key priorities of the "Skills for a Modernised Industry" challenge – notably, Fairness, Inclusion and Respect, digital, offsite and carbon reduction
3. Access to the learning resource library has doubled with over 5,500 e-learning downloads and 12,000 resources accessed

The School has been agile and moved all its training to a virtual face to face model. These are not your usual webinars but interactive and engaging training sessions that create a virtual classroom and instructor led group work. The School has reacted to emerging priorities such as wellbeing and productivity issues created by COVID and has also supported our industry to tackle wider societal issues such as diversity and the climate emergency.

> We've continued to educate our supply chain through the Supply Chain Sustainability School. The learning platform has been pivotal during lockdown and instrumental in the success of supporting our priorities.
>
> **Graham Edgell, Director of Sustainability and Procurement, Morgan Sindall Group**

The School Partners work together to provide clear and consistent training to industry in a series of special interest groups that align to the key priorities of the CLC for example FIR Programme, the People Matter Charter, Climate Action Group, and Offsite for Everyone.

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