2023 Industry Training Board (ITB) review

Transforming the construction workforce

January 2025

Contents

1. Foreword

The construction and engineering construction sectors are both facing unprecedented challenges. In conducting this review, I have therefore looked to ensure my observations, conclusions and recommendations respond directly to these challenges with the aim of future proofing the industry's resilience. Although the concept of the Industry Training Boards and the associated levy grant system dates to the early 1960s and was established to address apparent market failure in over 20 sectors of the economy, it is perhaps of note that construction and engineering construction are the last two remaining sectors still subject to this statutory intervention.

Despite many of the fundamentals of the industry's operational models remaining unchanged over the last 60 years, I am of the opinion, for reasons described in this review, that the wider context within which these two sectors now operate has changed. This means that this review's testing of the relevance of the original legislative mandate and assessment of the way the ITBs are delivering to that mandate is very timely.

The review team has revisited the 2015 review undertaken by the Department for Business, Innovation and Skills and the 2017 review undertaken by DfE following a change in sponsoring department. Both of these reviews suggested reforms and modifications to the ITBs but concluded that their basic model and statutory mandate be retained. I have approached this review from a fresh perspective, informed by the latest data and emerging trends which will define the challenges that lie ahead for the industry.

It is fair to say much has happened in the period since the last ITB review, with a major global pandemic, European conflict and significant domestic and international economic volatility all being thrust upon both sectors. In turn the responses from their ITBs have rightly had to flex from previously set strategies and business plans.

Notwithstanding this, the urgency of addressing some of the longer-term structural workforce issues now facing the sectors has only increased. I have therefore been keen to understand through this review process how the ITBs are building improved resilience in the industry's human capital base.

Although I have ensured that this review has been conducted in accordance with Cabinet Office guidance[1], reporting against pre-defined assessment criteria, I have also sought to widen the nature of the evidence gathering where it serves a useful purpose to contextualise the findings. As part of this I have analysed the nature of the wider labour scarcity and productivity challenges which both sectors are increasingly contending with and what this might mean for the future. Reference is also made to the wider issues

[1] Requirements for Reviews of Public Bodies - GOV.UK

which the industry contends with that are beyond ITB influence but which any strategy needs to allow for. This effectively sets the scene for identifying what relative impact has been made by interventions to date, whether an ongoing intervention is needed, if so what the model of ongoing intervention might need to be and where should its priorities lie. As a consequence, I set out a future state which is in part different to the current interpretation of the ITBs statutory purpose, powers and functions in the Industrial Training Act and its implementing statutory instruments.

This review's commentary has, of necessity, tended to focus more heavily on the Construction Industry Training Board (CITB) and the construction sector and I make no apologies for that. This is simply a reflection of the relative size, market complexity and number of issues facing that sector relative to engineering construction.

The overarching aim of the review has been to test the level of measurable outcomes linked to the activities of the ITBs. There is no doubt that many people have been fully engaged in a hugely difficult task of trying to effect positive impact in two challenging industries that are behaviourally resistant to change, reinforced by the business models and trading conditions that prevail. Despite this, the question remains as to whether the ITBs have been making sufficient impact and proving the level of additionality which justifies the existence of such a significant, legislation backed market intervention.

As the engineering construction and construction industries are the only remaining examples of such an approach, this in many ways further focuses attention and challenge on why they are still needed some 60 years after the concept of an industry training board was born. This includes the question of whether their existence has put these two industries in a better place than their non ITB served peer group. This question needs to be answered dispassionately and honestly.

As an SME consultancy business founder and owner in the construction sector, I have conducted the review process with the benefit of practitioner knowledge of the construction market. In 2016, I also assessed the operation of the CITB in an independent review of the construction labour model (Farmer Review[2]). I have however avoided jumping to conclusions, letting the evidence steer the process. I have also tried to distinguish between opinions and demonstrable facts that illustrate whether the ITBs are making a bottom-line difference to industry's biggest challenges.

In shaping recommendations, I have assessed the overall effectiveness and performance of each of the ITBs across a number of fronts. I have not shied away from difficult choices, but I have also looked to ensure recommendations are rooted in reality. There is recognition that in dealing with the issues at hand, terms like 'reform' often constitute

[2] Construction labour market in the UK: Farmer review (gov.uk)

warm words only. Achieving real transformational change needs to be firmly founded in a deliverable but challenging plan, able to make a tangible difference with associated accountability for that plan imparted.

Many of the findings and recommendations of this review are ultimately matters of national interest as well as for the industries concerned and their respective workforces. Many also directly impact stakeholders beyond the ITBs, government and industry employers. It is hoped that this review prompts a much wider debate on required changes to the broader construction skills system. That debate should include private and public clients, funders, insurers, training providers, the Higher and Further Education sectors, technical and professional institutions, and trade bodies. I believe this review shines a light on important issues that need to be collectively grappled with now rather than allowing ourselves to slowly sleepwalk into a much bigger future problem.

I have been struck by the large number of people I have met during the process, including from both ITBs, who are genuinely passionate about both construction and engineering construction and in particular the crucial role the workforce plays in delivering the massively important outcomes they are responsible for. There are without doubt great things happening that are good news stories for individuals, businesses, and the wider industry.

However, I have detected an underlying apprehension about what lies ahead. There is a sense that many are persevering to make a difference whilst feeling that they are fighting the tide. I think all of this reinforces my belief that we collectively need to think and act differently if we are going to make all this hard work and effort really count going forward.

The size of the challenge is daunting; an easy option would undoubtedly be to leave the industry to resolve its own skills issues and hope for the best. I do not believe however that would be the responsible course of action. It feels that one last attempt to turbo charge the impact of the current legislation through a wider system transformation is a worthwhile and important endeavour.

It is an important consideration in reading this review that it was undertaken during 2023. Since that time, a year has passed when economic pressures bearing down on the industry and its workforce have been significant and have potentially further damaged the industry’s resiliency. Importantly, there has also been a change of government with new policy announcements being made on various issues. In my opinion, the prevailing economic backdrop and the opportunity to reset some areas of policy make the findings of this review even more important than ever. This is perhaps most high profile in relation to new homebuilding targets, with a confirmed desire to achieve 1.5 million new homes in this Parliament. There is also a renewed commitment to transitioning to clean energy and supporting retrofit requirements. Achieving these ambitions will require system wide reforms such as make planning simpler and incentivising investment, but it will also ultimately rely on building sufficient capability and capacity in the workforce to deliver.

It is also worth noting here that the former Apprenticeship Levy referenced throughout this review is now superseded by the Growth & Skills levy. It is pleasing to see the aim of this newly scoped levy being wider than just supporting traditional apprenticeships, and this review, as will become clear, supports the aim of more diverse and flexible career pathways as well as more focus on reskilling and training the existing workforce. The recent announcement for example by NHBC of a national network of Skills Hubs offering accelerated, site based training for priority parts of the workforce is welcomed in this regard and hopefully it can become an example of a new platform for scalable impact in increasing homebuilding capability and capacity.

Since the review was concluded, the new government has also announced its modern industrial strategy and the introduction of Skills England as a new arms-length body. Although construction is not expressly identified as a growth driving sector in the industrial strategy, a fully functioning and healthy construction workforce will be crucial to delivering economic growth. The transition to this new skills body is seen as an important opportunity to underpin any new industrial strategy with a linked workforce strategy and in the context of this review, support the reset of the ITB model and wider reforms signalled herein.

Finally, I would like to express my gratitude for the support provided by the review team from DfE. They tirelessly provided me during the course of the review with the infrastructure to help diligently build an evidence base, to help analyse that evidence and to guide me as necessary through the machinery of government as part of the process of drawing conclusions and making recommendations for this review. Ultimately the recommendations are mine and I take responsibility for them, but this review was truly a team effort.

Mark Farmer, Lead Reviewer

January 2025

2. Executive summary

The concept of an ITB derives from the Industrial Training Act (1964)[3]. Designed to collect and utilise a statutory levy to address concerns over skills and training sufficiency in certain parts of a post war United Kingdom still seeking to rebuild its economy. From an initial list of 21 training boards, only two remain – Construction and Engineering Construction, existing as Arm's Length Public Bodies (ALBs).

This review has been tasked with assessing whether these two boards should continue to exist, and if so in what form and performing what function, under what governance and how accountability should be upheld.

The review has concluded that the ITB model requires a bold new vision in order to justify its statutory mandate going forward. This vision should be:

> "Transforming the current ITB model into a world class construction workforce planning and development system.
>
> This system should have the aims of enabling a more competent, productive and resilient industry, safeguarding the capacity and capability to deliver our nation's critical national infrastructure and decarbonised economic growth whilst ensuring the highest standards of quality and safety in the built environment."

This will mean:

- merging the ITBs into a single workforce planning and development body for construction and engineering construction, supported by statutory levy
- a whole of workforce focus on competency to drive up productivity and quality by enhancing, supporting and leveraging the wider skills system
- the development of a digital skills passport to evidence and police competency - linked to a strategic workforce plan for the industry
- greater support for industry transition to the future including green, pre-manufacturing and technology related skills
- increasing attraction and reducing current losses from the skills system by offering meaningful and flexible career pathways including to those from disadvantaged backgrounds and harder to reach parts of society

This review has concluded that a direct intervention into the skills systems of these sectors is still needed. There is a confluence of structural labour force attrition, stubbornly

[3] Industrial Training Act 1964 (legislation.gov.uk)

low productivity, and the growing challenges of having to transition to delivery of better quality assured built assets capable of supporting national priorities including clean economic growth. The need for an intervention is further underlined by the unprecedented risk now emerging in relation to declining workforce size and skills misalignment. This is all being driven by demographic, societal, geo-political and technological trends together with rapidly changing end client, funding and regulatory requirements.

Construction's particular exposure to economic cyclicality means there is now evidence of declining structural resiliency with destructive 'hollowing out' of the workforce during downturns. Over the last economic cycle, for the first time in over 50 years, construction employment has failed to recover beyond its previous peak level and is now at its lowest proportion of total UK employment in nearly 100 years. During the same period construction labour cost inflation has surpassed background national wage growth by 40% whilst industry productivity has actually declined. These stark facts are considered by this review to be crucial lead indicators of the industry's future trajectory and represent a direct challenge to the effectiveness of the ITBs over the last 15-20 years.

The growing threat to workforce capacity is ultimately exacerbated by continued reliance on labour intensity. Despite a bleak labour market outlook, there are still too few change initiators or incentives for individual businesses to markedly reduce that reliance through capital deployment or production model reforms. This review believes that wider design and production modernisation, although happening incrementally, will not fundamentally improve productivity in the short to mid-term. This will require the input cost economics and delivery risks of business as usual to force change, which will take time. It is also felt unlikely that any major shift in productivity improving behaviour related to procurement and payment practice will occur by choice outside of regulated requirements. There is therefore a need for a new, parallel, workforce led approach, to help close the capacity gap.

The conclusion of this review is that the current ITB model, whilst enabling worthwhile training is not delivering the level of strategic forward thinking, scale and pace of influence or tangible bottom line impact that the industry now requires to future proof it against the issues highlighted above. The issues are almost entirely common to both ITBs despite differences in respective market size and characteristics. A refocused strategy is required which spans attraction, training, retraining, retention, all ultimately to drive productivity and capacity.

ITB direct activity to date related to new entrant attraction and diversification has not delivered sufficient additionality to offset current and future attrition risks or to step change diversity of the workforce. This review believes there is a real possibility that the industry has a natural or predisposed size and profile of new entrant flow that is difficult to influence significantly through outreach measures or major campaigns. In turn, the industry appears to have an absorption ceiling on taking on new apprentices and other

employed learners due to the difficult trading environment it operates in and lack of capacity to mentor and supervise learners.

Notwithstanding this reality, new entrant attraction and retention outcomes need to be improved by more diversified and effective bridging pathways from school or other sectors into sustainable employment. Focus needs to be much more on fundamentally re-articulating career benefits propositions and maximising retention of those who already start in post 16 pathways close to the industry. There is a need to align attraction activity to the largest and highest potential resource pools.

Longer term workforce attraction, retention and maximising total workforce potential need to be addressed through more flexible whole career pathways. These should adopt more modularised and unitised standards, qualifications, credentials and curricula and be accompanied by refreshed training provision for both specialist and generalist content. Improved strategic workforce planning is required to better optimise brokerage of workforce skills supply and demand, identifying future requirements and underpinning investment in training.

There is a need to be much more realistic about future new entrant numbers, employment absorption rates and total workforce quantum. This means quickly identifying a range of high priority interventions across different existing worker cohorts that will improve retention, utilisation and productivity. This review has concluded that there is sufficient evidence to link competency to productivity so competency attainment should be a central theme of future training, retraining and upskilling.

Despite current ITB supported training activity, site-based labourers, tradespersons, supervisors, and managers are likely to remain at the biggest risk of future shortages. This segment is also likely to have less potential for near to mid-term major technological automation or step change productivity improvements. This will largely require a series of ‘shallow and wide’ practical training, retraining and upskilling interventions to improve rather than revolutionise current practice. These need to be applied across a significant proportion of the workforce.

This contrasts with possible ‘narrow and deep’ future disruption to certain pockets of site workers and inspectors and more specifically professional, technical and knowledge-based workers. This will be accelerated by the advent of generative AI, robotics, intelligent data analytics, algorithmic processing and other technology applications. These changes could hugely improve project and ultimately industry productivity and reduce certain workforce growth pressures but will also create urgent retraining needs and test workforce planning accuracy.

Against this backdrop, there is a fundamental ITB levy impact and outreach challenge in order to improve workforce capacity and capability at a macro level. This will require a pivot in levy spend with a more forced redistribution for maximum industry impact not simply balancing the books at an employer level for levy out and grant in. The funding to

support such a whole of workforce intervention requires a more efficient industry drawdown and mobilisation of both ITB levy and apprenticeship levy with additionality maximised. There is also a need to better leverage the wider skills system and other funding mechanisms.

This all requires a fundamental reset of the current ITB model with activities, capabilities, leadership, governance and ultimately the core operational model all completely refreshed. This will demand a ruthless focus on addressing the future workforce capacity, capability and resiliency challenges set out in this review.

A future ITB operational model will need to deliver greater efficiency and cost of delivery reductions to ensure value for money. A new strategic plan needs to be agreed between government, industry and any future ITB equivalent body to ensure the right balance of leadership, support, enablement and funding of others, including third party specialists, across different activities. It is likely this will involve some current activities stopping or reducing and new ones starting or ramping up.

Any future ITB model needs to have much more balanced accountability between itself, government and industry employers, focused on achieving outcomes with reciprocal dependencies identified. There should be clear conditions set on required performance linked to tangible workforce planning and development objectives. Poor performance going forward should not have the protection of another full ITB review cycle period and should be subject to early intervention by government and industry.

It is important to note that achieving the vision set out by this review is not just contingent on a reset and transformation of the current ITB model itself. It will require modifications to some aspects of the wider construction and engineering construction skills ecosystem and recommendations have been made in relation to this.

Transformation will ultimately require important decisions to be made by industry and its end clients, funders and insurers on the mandating, procuring and policing of a minimum standards led workforce. This should be evidenced by improved competence to ensure better outcomes in terms of quality and productivity. This will require a step change in the robust validation and policing of whole workforce capability beyond current regulatory requirements. This review has concluded that the current levy grant system used as a financial incentive approach alone is not enough to drive the necessary change and requires the addition of a new compliance dimension.

In setting out such a bold and ambitious plan for the future, this review does not underestimate how difficult this could be to achieve. It is a challenge that needs to be met however in order to safeguard the nationally important role played by construction and engineering construction in delivering critical social and economic infrastructure and UK economic growth.

A summary of findings and recommendations is set out below.

1. Intervention is still needed in both sectors due to ongoing market failure.

Retain the ITB model and statutory levy, but with wholesale transformation of focus.

Proposals and milestones to be agreed with DfE. DfE to be satisfied with progress or reconsider the ITB model.

Progress to be overseen by a GB and Devolved Administrations government steering group.

2. Retain and repurpose the levy-grant system.

Focus spends on new priority objectives supported by revised KPIs agreed by industry and government.

3. Construction and engineering construction sectors face common strategic workforce challenges.

Merge Construction Industry Training Board (CITB) and the Engineering Construction Industry Training Board (ECITB) into a single, rebranded body (the ‘new body’) tasked with improving workforce capacity, capability and resiliency.

New body should have specialist, sub-sector specific implementation teams spanning construction and engineering construction.

New body to be accountable to both government and industry on a more balanced basis, measured on defined outcomes.

DfE to set clear consequences for inability to evidence improvements and a clear direction of travel within a reasonable time.

4. Strategic focus is required on safeguarding industry capacity and capability.

The ITBs and subsequently the new body should move to a revised single strategy with priority objectives focused on:

- improving workforce competency & ensuring its ongoing maintenance
- improving industry's project level productivity
- improving industry's strategic level resiliency via workforce retention and utilisation

5. Need to refocus on whole workforce skills and not just new entrants.

Redeploy activity and funds into more programmatic activity and new pathway interventions that are scalable and impactful, spanning both the employed and self-employed workforce.

Consult with government and industry to agree, test concepts, and implement a course of action, thematically at scale.

Funding aligned to improving average industry competency, productivity, utilisation, and retention.

6. A need for more strategic workforce planning.

The ITBs and subsequently the new body to own and drive strategic workforce planning as a primary objective, better predicting and aligning future skills supply and demand.

To enable this, a digital real-time strategic workforce planning and jobs brokerage platform should be developed.

7. Overhaul work on attracting new entrants to the sectors.

The ITBs and subsequently the new body to reduce their direct role in talent attraction activity but continue funding high impact support and the central coordination required by industry.

8. Career and skills pathways need to maximise the supply and retention of trained workers into and through the industry.

Together with government and industry, the ITBs and subsequently the new body should redefine their role in leading and/or supporting a refresh of existing construction and engineering construction occupational and qualification standards and associated pathways.

A new pathway matrix should be the basis of a revised funding and grant offer from the ITBs, and subsequently the new body, to industry and a redefined relationship with providers.

The pathway matrix should span the entire career journey from worker entry to retirement linked to competency demonstration and maintenance.

Work with DfE, Institute for Apprenticeships and Technical Education (IfATE), Ofqual and devolved administrations to better align Occupational Standards, National Occupational Standards and allow improved additionality of funding between apprenticeship levy and ITB levy.

Greater harmonisation and collaboration with and support for IfATE is required as standards lead in England. This should include alignment of industry specific views on the true need for additional or conflicting roles and standards relative to IfATE's current occupational mapping.

The ITBs and subsequently the new body should also act as lead coordinator to maximise the use of Bootcamps, Local Skills Improvement Partnerships and other DfE funded programmes to assist meeting the new strategic objectives.

For construction, the new body's interface with the Construction Leadership Council (CLC) should ensure current initiatives regarding competence, pathways and productivity are combined not duplicated, with lead and support roles agreed between relevant bodies based on capability, industry reach and leadership and that important voluntary initiatives are able to access funded resources from the new body as an engine room of implementation.

Activity should also ultimately respect and leverage the requirements of regulated building safety competency via the various working groups feeding into the Industry Competence Steering Group (ICSG) and the Industry Competence Committee (ICC).

Aligned effort is needed to span the wider industry beyond current ITB scope using CLC convening power with of out-of-scope trade bodies and the like.

9. Quality of provision is variable. There is insufficient currency and capacity of teaching relative to modern workplace expectations and new methods/regulations.

The ITBs and subsequently the new body to develop & police a refreshed training provision offer as part of the wider skills eco-system.

Engage competence and workforce development specialists to support this.

Primary objective for course development should be accelerating industry wide competency and productivity improvement in an incremental but scalable manner.

The ITBs and subsequently the new body should work with government to identify means of incentivising, attracting and funding competent industry actors to make a career change to teaching.

Industry leaders need to continue to recognise the role their organisations can play to support training.

10. Health and Safety cards need to be strategically enabled through greater collaboration, platform inter-operability and unification, all underpinned by industry recognised competency standards.

The ITBs and subsequently the new body should play a central role in helping facilitate with other agencies a digitally enabled and dynamic national competency register and passport system. This should span the whole workforce, with accreditations, qualifications, and experience all codified and resultant proven competencies registered, and their maintenance policed.

This should enable a move, beyond regulatory requirements, towards minimum proven competency being an effective industry wide barrier to entry or practice to drive up quality and productivity.

11. There is currently a missed opportunity presented by both client procurement and the planning system to drive improved skills and training outcomes and to catalyse the changes set out in this review.

Public sector procurement should progressively support a move towards a whole of workforce competency mandate beyond regulated requirements.

Responsible private clients, investors, end asset owners and importantly, insurers, should look to emulate this move through discretionary procurement led mandating or responsible conditioning of underwriting.

The government's Transforming Public Procurement programme and the application of the impending Procurement Act should recognise the wider benefits of workforce wide skills development.

The government's National Infrastructure Planning portal needs to be integrated with a live version of the National Infrastructure and Construction Pipeline, sharing in one place a consolidated inventory of major projects and central, regional, and local government funded programmes.

Overhauled model clauses for planning obligations should be developed through the new National Policy Planning Framework (NPPF) to provide local planning authorities with guidance on how more sustainable workforce outcomes can be created both locally and regionally.

12. There is the potential for the new body to be sub-optimal in delivering against new strategic objectives due to its scope legacy.

DfE should, by exception, explore and consult with industry on a modified legislative scope order, to resolve the most obvious anomalies and ensure fairness in the funding of the whole of workforce approach advocated by this review.

There should be consideration of a fairness adjustment on future levy liability for those employers employing people both in and out of current scope, who are charged levy on their entire payroll.

13. The ITBs are central government ALBs and required to comply with all financial control requirements. Crucial that compliance with spend controls is not impacted by unreasonable delay.

DfE and the ITBs to fully evidence that they meet all financial requirements ahead of the creation of the new body. This includes an agreed Framework Document, Delegated Authority Letter, spend controls and functional standards.

DfE to resolve if government has a role in approving the new body's strategic/business plan.

Government to implement an SLA process for the spend control approvals.

14. There should be a clearer rationale for particular investment of ITB levy. This review would like to see further evidence of how evaluation and lessons learned are used more systematically in developing strategy and business planning. The latest CITB KPIs are mainly focused on transactions or outputs, rather than measuring the end impact or value added.

The ITBs and subsequently the new body should demonstrate to industry and government the rationale for investment in particular interventions. It should also set out expected impacts, how this will be measured and report on progress.

The ITBs and subsequently the new body should ensure KPIs measure direct induced cause and effect.

The ITBs and subsequently the new body should show more evidence of a systematic approach to using evaluation and lessons learned to refine future delivery to maximise value for money.

15. There should be more transparency of the funding spent directly on training compared to that spent on the costs of running the organisation. It is important that levy is converted to skills investment and industry outcomes at an optimal rate. CITB also appears to be reliant on external consultants at present.

The ITBs and subsequently the new body should deliver efficiency savings, post-review changes should aim to yield savings of at least 5% from operational expenditure. The CITB and subsequently the new body should reduce reliance on external consultants.

The ITBs and subsequently the new body should consider publishing clearer evidence of the split between funding spent directly on training and the costs of running the organisation.

The ITBs and subsequently the new body with government should examine ways to better benchmark elements of spend.

The ITBs and subsequently the new body with government should agree appropriate levels of reserves.

16. The time lag between the activity of CITB's levy payers and their levy payment should be reduced.

The CITB and subsequently the new body should make proposals to DfE on reducing the time lag between levy returns and levy payment as much as the current legislative arrangements allow.

17. There is an opportunity for more strategic engagement with government and with the devolved administrations.

DfE should ensure the sponsorship team is resourced to manage a period of extensive change and transition.

DfE should involve the ITBs and subsequently the new body earlier in strategy and policy development.

The ITBs and subsequently the new body should seek to engage more with ministers in Scotland.

The DfE sponsor team should consider engaging more closely with the devolved administrations to maximise opportunities.

The ECITB and subsequently the new body should do more to link its organisational sustainability measures and reporting to the Greening Government Commitments (GGC).

The DfE sponsor team should facilitate the ITBs and subsequently the new body in meeting obligations under GGCs.

A more detailed expansion of findings, conclusions and these recommendations is found at Section 7 of this review.

3. Introduction

3.1 History of Industry Training Boards

The Industrial Training Act (1964) empowered the Minister of Labour (later the Secretary of State for Employment) to establish Industry Training Boards to help make better provision for training in labour and commerce. By the beginning of the 1980s, there were 21 ITBs under the oversight of the Manpower Services Commission.

The Industrial Training Act (1982) replaced the 1964 Act, adding new requirements for the establishment, operation and winding up of the ITBs. Over the course of the decade many of the ITBs were wound up and replaced by voluntary organisations. At the end of that decade the government consulted with the sectors of the remaining seven ITBs with the aim of converting those to voluntary organisations in the same way. However, employers in the construction and engineering construction industries argued for the retention of ITBs in those sectors. In the subsequent Parliamentary debate, the Secretary of State for Employment stated:

“I have accepted the strong arguments of employers that statutory arrangements should continue there for the time being. There are particular problems in those areas concerned with a highly mobile labour force. In those industries there is much labour only sub-contracting, a high level of self-employment and a high use of short-term contract labour”[4].

The ITBs were established for the statutory purpose of 'making better provision for the training of persons over compulsory school age (in Scotland, school age) for employment in any activities of industry or commerce' (Industrial Training Act 1982 (legislation.gov.uk), Section 1(1)). Section 5 of the ITA sets out the key powers the ITB can exercise for ‘the purpose of encouraging adequate training'.

The ITBs for construction and engineering construction were retained with their scope of 'activities’ for the relevant industry in relation to which the ITB’s functions are exercised (and those activities that are excluded) being redefined in legislation in 1991[5] (ECITB) and 1992[6] (CITB), respectively.

[4] DISSOLUTION OF TRAINING COMMISSION (Hansard, 8 November 1989) (parliament.uk)

[5] The Industrial Training (Engineering Construction Board) Order 1991 (legislation.gov.uk)

[6] The Industrial Training (Construction Board) Order 1964 (Amendment) Order 1992 (legislation.gov.uk)

The Film Industry Training Board was established in 2007. It was wound up in 2021, having never raised a statutory levy and its functions transferred to ScreenSkills[7], a voluntarily funded industry skills body.

The Department of Business, Innovation and Skills carried out a review of the three ITBs in 2015 ('Combined Triennial Review of the Industry Training Boards (Construction, Engineering Construction and Film)')[8]. That review concluded that the main case for retaining ITBs as non-departmental public bodies (the specific subset of ALB that they are classified as) depended on whether statutory levies could be administered by central government departments or not. The review assumed that an ALB was needed to administer such levies but recognised that this view could change with the introduction of the apprenticeship levy, to be collected by HMRC. As a result, the 2015 review stated it would be premature to make a recommendation on the future of the ITBs at that stage. Instead, the review made a number of recommendations to improve the ITBs' performance. In 2016, the CLC commissioned Mark Farmer to review the UK's construction labour model[9]. This recommended reform of CITB to address dysfunction in the training system. That same year, the Machinery of Government changes transferred the sponsorship of the ITBs to DfE[10]. Following that, DfE appointed Paul Morrell as Lead Reviewer to carry out a review of both CITB and ECITB ('Building support: the review of the industry training boards'[11]). That review recommended that both ITBs be retained but recommended improvements to their governance structure and accountability.

Since 2017, both ITBs have undertaken changes to incorporate the recommendations of the reviews and feedback from their industries. The government appointed new Chairs in 2018; Peter Lauener (CITB) and Lynda Armstrong (ECITB). The CITB appointed a new Chief Executive (CEO), Tim Balcon in 2021 and ECITB appointed its new CEO, Andrew Hockey earlier this year.

The ITBs differ from most public bodies in not receiving grant-in-aid directly from government: most of their funding comes from their levies. A hypothecated tax on employer payroll in their respective industry. Every 3 years an ITB may make levy proposals for the Secretary of State for Education's approval based on a vote of in-scope employers ('consensus'). A consensus vote must achieve approval from more than 50% of levy paying employers as well as approval from those representing more than 50% of the value of the levy payments.

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[7] Careers, jobs and skills training in film, TV, VFX, animation and games - ScreenSkills

[8] Industry Training Boards: combined triennial review - GOV.UK (www.gov.uk)

[9] Construction labour market in the UK: Farmer review - GOV.UK (www.gov.uk)

[10] Machinery of Government Changes - Hansard - UK Parliament

[11] Building support: the review of the industry training boards - GOV.UK (www.gov.uk)

In 2021, CITB secured approval from 66% of employers liable to pay its levy and those representing 63% of the levy value. This is a significant fall in support since the 2017 consensus which received approval from more than 76% of employers liable to pay its levy and those representing more than 69% of the levy value.

In 2022, ECITB secured approval from 85% of employers liable to pay its levy and those representing 97% of the levy value. This is an improvement in support since the 2019 consensus which received approval from more than 75% of employers liable to pay its levy and those representing more than 87% of the levy value.

3.2 Background to the review

This review was instigated, as part of a wider programme of ALBs, by the government in May 2023. Mark Farmer was appointed as Lead Reviewer by the Minister for Skills, Apprenticeships & Higher Education. The ministerial commencement letter can be found at Annex A and the Terms of Reference for this review is at Annex B.

The basic requirements of Cabinet Office guidance for conducting a review of a Public Bodies have been adhered to, whilst judgement has been exercised on the relative focus and priority given to each of the pre-defined areas of analysis in the context of their importance to end decision making.

In summary, the overarching assessment architecture requires analysis against four primary ‘quadrant’ areas which are:

- efficacy
- efficiency
- governance
- accountability

In relation to efficacy there is also a fundamental preliminary ‘pass/fail’ question of whether the ITBs still meet at least one of the government’s ‘three functional tests’ for an ALB. This was an initial assessment which the review team took seriously, analysed in depth, and took external advice on before proceeding further with the review process. The findings of this full assessment process under these four themed quadrants are structured and set out in this review and are directly grouped against these four themes for ease of reference and understanding.

Further to specific requests in the review commencement letter and notwithstanding what the core four quadrant analysis requires, the review seeks to address specific questions on:

- the quantifiable additionality of the ITBs in terms of developing and improving the skills of the workforce within their respective industries

- whether the statutory levy is the most appropriate model for the ITBs to meet their objectives; and
- whether there is scope for reform, or merger, of the ITBs

3.3 Methodology

The review team set about a process of evidence gathering in June 2023.

There are three primary sources of evidence which the review team has sought to collect, analyse, correlate and coordinate between and ultimately draw conclusions from to inform final recommendations. These are:

- responses to open call for evidence
- selected industry stakeholder interviews
- documentary evidence including factual data and specialist advice

Each of these is dealt with in more detail below.

3.3.1 Call for evidence

An open call for evidence process went live on 30 June 2023 and closed on 25 August 2023. This constituted a multiple-choice questionnaire survey designed to understand better (beyond binary yes/no responses) the graduation of opinion that exists in relation to a series of statements that cover the efficacy, efficiency, governance, and accountability of the ITBs. In addition to multiple choice answers, free text augmented responses were also allowed for many of these lines of enquiry.

The responses to the call for evidence were collated and separated by ITB. Summaries of the responses can be found at Annex C and are referred to in the body of this review as necessary to contribute to the identification of emerging themes and specific viewpoints that are considered to deserve further attention.

The call for evidence was responded to by 155 parties spanning levy payers, providers, grant recipients and other industry stakeholders including Prescribed Organisations as defined in the ITB legislation. A breakdown of respondents by organisation type can be found at Annex D.

The overall level of response to the call for evidence was disappointing. The reason for the relatively low response is unclear.

However, when assessed with the wider evidence set out below, the review team has concluded that the feedback still serves an important purpose in validating certain observations, building a primary source of anecdotes and experiences, and indeed showing the extent of divergence of opinion that exists from different perspectives, even within the same organisation!

The review team has been careful to demarcate between factual and opinion-based evidence that has been shared as part of the call for evidence, but we have actively sought both to create a sense of how the ITBs are perceived as well as identifying measurable outcomes.

3.3.2 Stakeholder interviews

As part of the preparation for the review, a sample-based list of stakeholders across both the construction and engineering construction industries was selected as candidates for interview to elicit raw opinions, data, experiential evidence and leads that could be further explored. These candidates were selected through a process of ITB and review team proposals. The Lead Reviewer decided the final list based on expected diversity of opinion and alignment to areas of focus. A list of the interviewees for each ITB can be found at Annex E.

The interviews typically lasted 45 mins – 1 hour and, although not a scripted question and answer format, used a structured conversational approach to draw out key observations within the interviewee's specific domain knowledge / field of experience. These were then recorded for further analysis and thematic grouping as part of the review process.

The interview findings have been crucial in hearing first hand from different angles and perspectives what the experiences are of dealing with or working with both ITBs. Again, as with the call for evidence, the review team has been careful to separate opinion from experiential evidence or factual data as part of this evidence base.

3.3.3 Documentary evidence

The third form of evidence was the largest and took the form of the various sources of documentary reports and data that have relevance to the ITBs either directly or indirectly.

In broad terms, the generic types of documentary evidence constituted:

- industry stakeholder group reports including by Prescribed Organisations
- academic, company/organisation or government commissioned research reports
- independent and government led reviews including previous reviews of the ITBs
- ALB reports & datasets including IfATE, National Audit Office, Office for National Statistics (ONS) and Ofsted
- government department published reports
- Parliamentary Select Committee reports and correspondence.
- ITB produced documentation including business plans, strategies, accounts, research reports
- CLC reports including people & skills workstream documents
- self-assessment by the ITBs

- DfE ITB sponsor team's assessment of the ITBs
- specialist cross department advice including legal and HM Treasury (HMT)

3.3.4 Evidence collation & coordination

Due to the multiple sources and varied nature of the evidence base, a structured approach was adopted to synopsise and extract observations that were routinely grouped within the four review 'quadrants' set out in section 3.2 above. Any gaps were then assessed and addressed where required by additional evidence gathering as necessary.

3.3.5 Challenge panels

To test the emerging conclusions of evidence gathering and to help shape emerging recommendations a formal process of establishing challenge panels for each ITB was initiated and as set out in the Terms of Reference. Challenge panels were established for both industry representatives and cross department government representatives. The challenge panels each met twice. The makeup of the industry panels was decided by the Lead Reviewer with a desire to see critical challenge from a range of voices representing small and large levy payers, industry leaders and from those who have labour market expertise or an understanding of critical national priority sectors such as retrofit or energy security.

3.3.6 Meeting the ITB leadership

The review team met the chair and CEO of both ITBs (in the case of ECITB also including the recent acting CEO) to clearly communicate approach and the overarching aim of the review to assess performance against the four quadrants and to specifically identify the degree to which ITB activity is leading to positive outcomes, all in line with the Terms of Reference. An update with ITB CEOs, albeit without sharing the recommendations of this review, also took place.

3.3.7 Terminology

There are occasions in this review where the term construction is used generically to embrace both construction and engineering construction, including in the title of this review itself and its primary recommendations. Where felt necessary, differentiation has been made to avoid over generalising on certain points. Similarly, this review makes numerous references to the often interchangeably used terms 'competence' and 'skill'. For reasons that will become clear there is an important distinction to be made between these two words. Despite this, in certain instances, mainly linked to accepted terminology, the word 'skills' rather than 'competency' is used in its generic sense, for instance in the term 'skills system'.

4. Industry context and scene setting

4.1 Size & shape of the industry

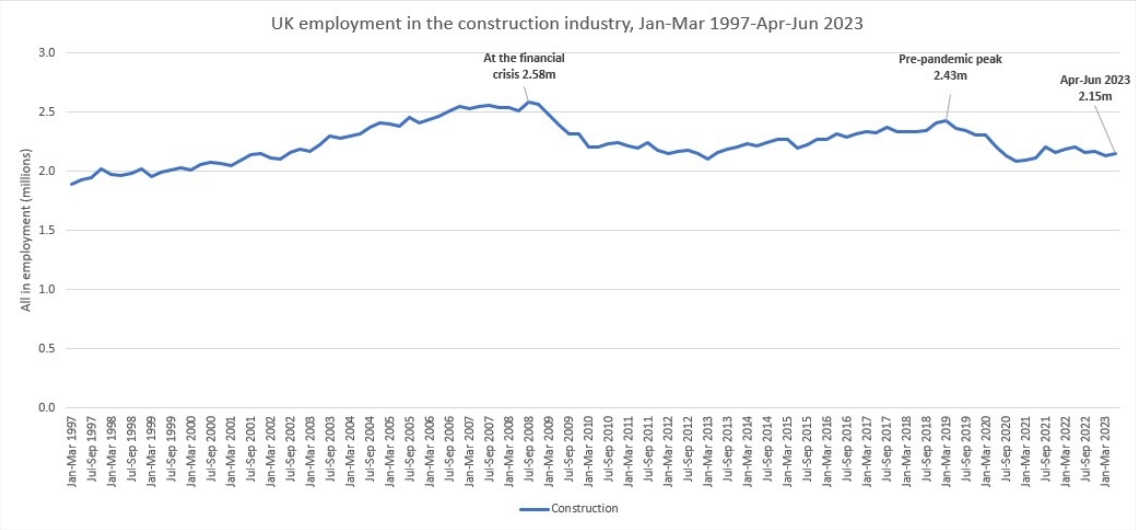
4.1.1 Workforce quantum

UK

Building and Engineering Construction provides around 7% of UK jobs with currently approximately 2.15 million in building and civil engineering and c.190,000 in engineering construction (excluding the downstream supply chain) This makes it one of the biggest employment sectors in the entire economy and reinforces how closely the industry is linked to our national interests and economic welfare. Anecdotally, construction has an economic multiplier of nearly x3 so the contribution to the economy and GDP is significant.

The overall size of the construction workforce has been on a downward trajectory since COVID-19, a function of both the pandemic, global events, and an economic downturn. What is more telling however is that the last peak of construction employment in late 2018 / early 2019 failed to match or better the previous peak achieved before the global financial crisis in 2008, despite the total UK population and workforce being 6-7% higher and GDP circa 20% higher. This is the first time peak to peak employment has fallen since ONS records began. Figure 1 below shows the industry's total employment profile over the last 27 years.

Figure 1: UK employment in the construction industry 1997 - 2023[12]



There are clear signs of declining structural labour force resiliency in construction with the industry taking a progressively smaller proportion of what is a growing population and available total workforce. Figure 2 below shows this decline in the last economic cycle from 8.7% to 6.55% of total employment between 2008 and 2023 where construction employment's rebound post Global Financial Crisis has clearly not matched that of the wider employment market. This is the lowest percentage of the total workforce construction has constituted since the inter war period of 1920-1938 when it averaged 6.37%[13]. There is a real prospect that the industry's employment rebound profile in the next economic cycle could be even shallower and accompanied by more workforce stress than seen in recent years as its resiliency further deteriorates.

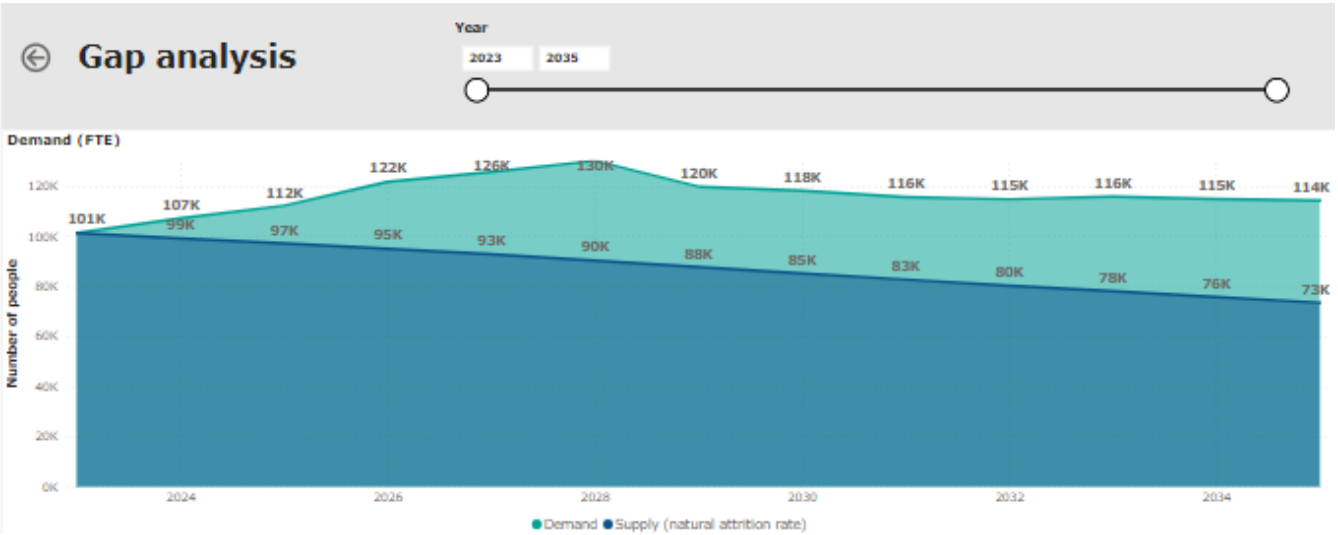
[12] EMP13: Employment by industry - Office for National Statistics (ons.gov.uk)

[13] Long-term trends in UK employment: 1861 to 2018 – Office for National Statistics (ons.gov.uk)

Figure 2: Construction employment as a percentage of total UK employment 1997 - 2023[14]

From an engineering construction perspective, ECITB's latest Labour Forecasting Tool, paints a bleak picture of declining workforce numbers based on what it terms 'natural attrition' relative to its future workforce demand forecast.

Figure 3: ECITB Labour Forecasting Tool[15]



[14] EMP13: Employment by industry - Office for National Statistics (ons.gov.uk)

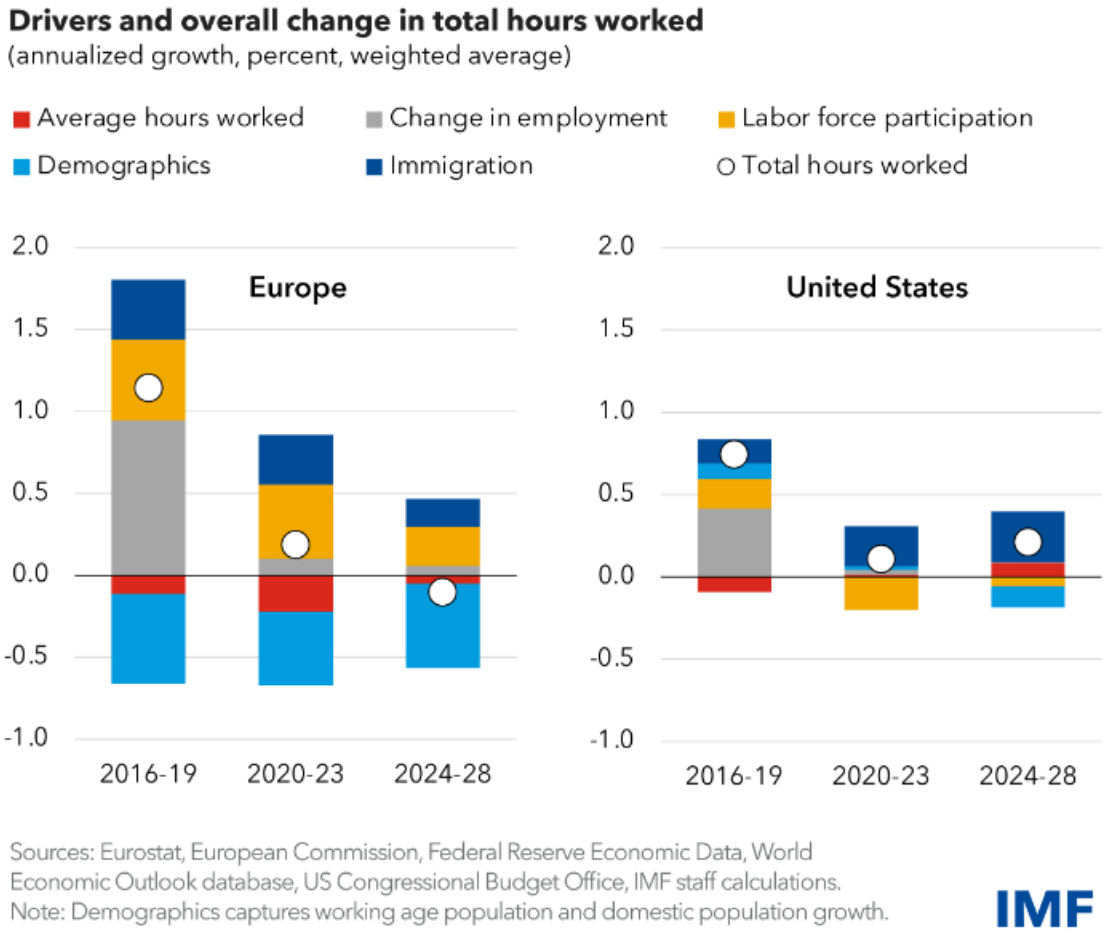
[15] Labour Forecasting Tool - ECITB

The above is all reflective of a major ‘workforce gap’ problem for both engineering construction and construction.

International benchmarking

The workforce quantum challenges facing the UK construction industry are not isolated to just the construction sector in this country and are becoming a wider developed economy challenge to international labour markets. A recent IMF study shows the broader global context in a Europe v US comparative analysis and identifies the contributory factors that are culminating in a labour market squeeze, including demographics, migration, hours worked and changes in the net economically active workforce.

Figure 4: Total hours worked Europe vs United States 2016 - 2028[16]



Looking at OECD data for the G7 countries over the last 30 plus years (figure 5), there is a common trend of static or declining structural construction employment in their national

[16] Europe’s Wage Rises Are Aiding Recovery but Economies Face Risks (imf.org)

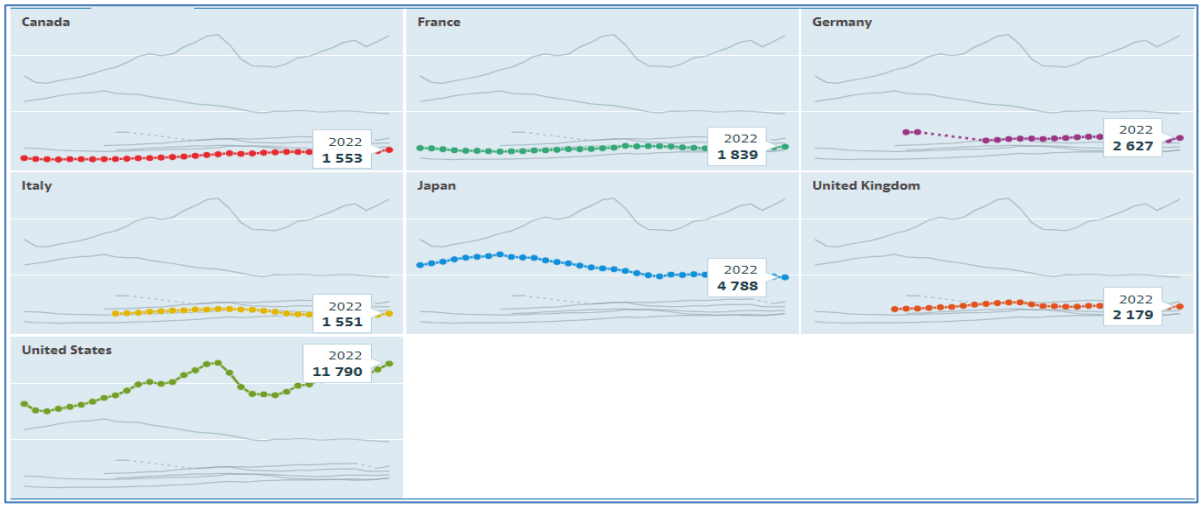
markets (other than Canada) despite growing economies and total available workforces. Their industries have been unable to reinflate to the peak employment seen in 2008.

Japan's serious long term workforce contraction is a worrying precursor as to where the UK might be headed as the Japanese demographic profile is older with a peak workforce position reached in the mid 1990's.

The reasons why Canada has been able to buck the wider G7 trend and slightly grow its peak to peak construction workforce over the last cycle are not entirely clear. They do not have a levy grant system but do have an industry sector council, BuildForce Canada[17], which enables and informs their construction skills system. Their relative resiliency may be more related to Canada's wider workforce participation and demographic context as it has consistently had one of the highest employment to population ratios of G7 countries over the last 20 plus years.

These graphs illustrate an international trend of declining workforce resiliency. They also illustrate that the UK has not out performed other countries on construction workforce retention and expansion despite the benefit of a levy grant system and training board model.

Figure 5: Construction employment,1990-2022, G7 countries[18]



This all underlines the long-term threat posed by a declining workforce. There is much more at stake for construction then many other parts of the economy. It is characterised by both labour intensity and poor productivity. Although there is equal concern about the war for talent in other markets, including the likes of advanced manufacturing, many of these sectors have been able to improve their productivity through capital deployment to

[17] BuildForce Canada – About Us (buildforce.ca)

[18] Employment - Employment by activity - OECD Data (OECD (2024), Employment by activity (indicator). Doi: 10.1787/a258bb52-en (Accessed on 05 January 2024)

offset at least some of the growing labour market issues. Their comparable gross additional workforce needs are therefore less in total terms relative to GDP contribution they make. Construction has not been able to shift its productivity dial despite the apparent inevitability of the future resource problems it faces. Unfortunately, its unique industry structure and difficult trading conditions perpetuate that impasse.

Forecasting accuracy

In terms of the resultant future workforce expansion pressures, the most widely quoted recent statistic is derived from the CITB's Construction Skills Network Industry Outlook Report 2023-2027[19] which states 225,000 extra workers will be needed in that period. The ECITB's Labour Forecasting Tool suggests a future need for 40,000 additional workers in that sector by 2028.

The accuracy of these projections is difficult to verify on a more granular basis. The main challenge for the industry, is knowing how many workers, of what type will be needed when, and where. This is influenced ultimately by various highly dynamic factors playing out in both the construction and engineering construction sectors which need to be modelled correctly on a year-by-year basis to optimise accuracy.

Current labour forecasts do not appear to reflect the current construction output downturn which will in fact likely reduce short to mid-term worker needs in 2024 (and perhaps also in 2025) but could well create an amplified 'hockey stick' of much increased worker requirements in any subsequent economic recovery. Future numbers will need to replenish ongoing demographic attrition and possible further workforce hollowing out from the current downturn before consideration of increasing net total numbers to respond to demand led output uplifts.

In the engineering construction labour market, there is an added dimension that the pace of change in decarbonising the UK's energy infrastructure appears to increasingly be at the mercy of what are ultimately politically determined decisions in terms of timing and pace of change from oil and gas reliance towards renewables. Although industry, led by private investment, appears to be increasingly making its own choices here, this backdrop is not ideal for assessing future workforce needs and investing ahead of the curve.

Dynamically modelling the hugely complex and often indeterminate nature of industry demand is a vital part of strategic workforce planning and means a greater level of sophistication is perhaps needed both in terms of forecasting likely future workforce roles, their timing and geography. This is covered later in this review.

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[19] CSN Industry Outlook - 2023-2027 - CITB

Supply & demand dynamics

In 2017, the Government Office for Science published a useful reference looking at the changing dynamics of the job market and the implications on skills[20]. It uses 4 quadrants to plot characteristics of localities where the employer demand for high skills is low/high and where the proportional supply of workers with high skills is low/high.

The term 'low skills equilibrium' is used to describe an unhealthy balance between supply and demand of low skilled jobs in a particular location. The fuller analysis looks at supply and demand together with attainment, productivity, and wages. It is not immediately apparent where construction sits in this analysis as the industry shows characteristics of all four quadrants at different times, in different geographies, and in different parts of the workforce. For the bulk of the construction workforce, it appears to span 'skills gaps and shortages' and a 'low skills equilibrium' as it is characterised by low industry productivity, low to mid educational attainment, mixed skill levels and periodically higher wage jobs which are either fulfilled or under supplied in a cyclical manner. This underlines the unusual nature of the industry in relation to where it fits in an accepted means of evaluation and the disproportionate impact labour scarcity has in a highly transient and unstructured labour market.

To conclude on the bottom line impact of declining workforce quantum, the commercial manifestation of growing structural workforce scarcity in the last peak to peak employment period of 2008-2019 has shown itself in labour pricing. In that period, real construction labour costs (importantly across both employed and self-employed labour) rose by 28% according to the BCIS Labour Cost Index[21] whereas UK median annual nominal full time earnings only rose by circa 20%[22]. This period excludes the labour market abnormalities created by the more recent pandemic and the Ukraine conflict. Labour scarcity is potentially becoming more dominant in long term input cost pricing, and it can be expected that construction wage inflation during future growth periods will continue to decouple upwards from background economy wage inflation. It is important to note that this wage inflation is not being accompanied by productivity growth as noted in Section 4.3 below.

4.1.2 Output quantum

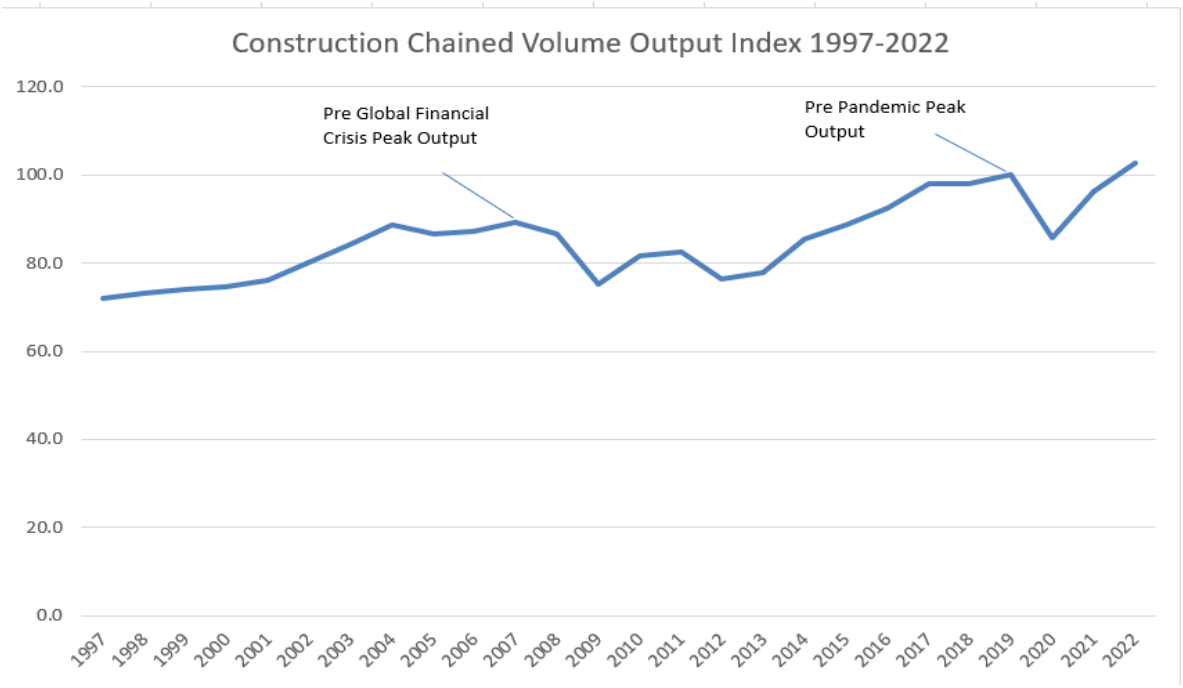
The relationship between workforce and output quantum goes to the heart of testing the nature of the industry's physical capacity constraints. The best available statistical measure for assessing construction output is chained volume measure which seeks to

[20] Future of skills and lifelong learning - GOV.UK (www.gov.uk) (p73)
[21] BCIS Labour Cost Index (bcis.co.uk)
[22] Employee earnings in the UK: 2019 – Office for National Statistics (ons.gov.uk)

normalise for price variances over time. It is not necessarily an accurate reflection of physical construction each year delivered on a like for like basis (ie floor area of buildings, length of roads etc) but is the best indicator of output.

In the last economic cycle, output peaked at the end of 2007, pre global financial crisis. It then declined sharply before slowly recovering to a pre pandemic peak in 2019. This broadly mirrors the workforce peak to peak position described in section 4.1.1 above. The chained volume output index at the beginning of 2019 was circa 12% higher than 2007 as seen in figure 6 below. During and post pandemic there has been a short term, amplified variability in output driven by unique circumstances.

Figure 6: UK construction chained volume output index 1997 - 2022[23]



Based on this measure, it would suggest that the industry has been able to surpass its previous peak capacity despite not being able to match its previous peak employment levels. This might be interpreted as a bottom line labour productivity improvement, but other evidence discussed in section 4.3 below suggest this is not necessarily the case.

An alternative conclusion is that the industry has effectively 'over traded' relative to its human capital base and core productivity characteristics during the last cycle. This could be reflected by the wage inflation and growing issues with quality of delivery anecdotally seen during the same period.

[23] Output in the construction industry – Office for National Statistics (ons.gov.uk)

There is no definitive way of testing capacity sensitivity of the industry on a like for like basis. There will always be a range of achievable output which any individual business, sector or indeed industry can achieve with constrained resources of any given productivity. The issue is whether that position is sustainable without over stressing the industry, resulting in both quality assurance and value for money deteriorating with extra demands on output.

It is arguable that this has been a long-term characteristic of the industry and its cyclical output profile. Growth period workforce stress is a direct consequence of the industry's flexible labour model, with a lack of continuous employment and investment in training, all driven by the economic trading environment. Some may take the view that this is the way it has always been since the industry has morphed its model of delivery towards increased flexibility over the last 50 years and that this is the most efficient and effective labour model for the industry, accepting its flaws. This review considers that perspective to potentially hold growing risks for the future and that there is an increasing need to address the characteristics of the labour force.

The emerging issues described in section 4.1.1 above in relation to workforce attrition, mean that the future consequences of over stressing the industry in the next recovery cycle are potentially more serious. There is likely to be a greater risk of meeting physical delivery 'ceilings' in some areas of the industry's activities and more worryingly, the propensity for price inflation and quality variability to be much higher. This will be compounded as the industry becomes subject to increased regulation forcing it to meet minimum standards.

4.2 Workforce characteristics

Within the workforce described above, there are some important characteristics of its make up which are worth summarising for additional context.

4.2.1 Demographics

For both construction and engineering construction, the review has heard that the biggest industry concern is the trend related to an ageing workforce. This is an insidious change that has been talked about for a long time. The emerging age slices through the industry, suggests this is soon to become a dominant driver of declining workforce numbers as it creates an increasingly large replenishment challenge before even considering expansion.

Figure 6: UK employment in the construction industry by age (England and Wales, 2011 and 2021)[24]

The above figure (note total workforce numbers are at odds with ONS data due to classification anomalies) clearly shows the further progression of the ageing 'bow wave' towards the 50- to 64-year-old range between the last two census points in 2011 and 2021. This now shows that circa 30% of the workforce is due to retire in the next 10-15 years and on a pure statistical headcount basis will not be backfilled by the current quantum of 16–34-year-olds unless there is an unrealistic step change in recruitment over this period. In the period between 2011 and 2021, the number of 16–24-year-olds has actually reduced which reinforces the precarious nature of things here.

As of 2021 construction employs 700,000 workers under 35 versus 1.65m workers over 35.

This means on an average and linear basis over the next 15 years, recruitment for replenishment only (not growth and ignoring economic cyclicality) needs to be circa 55,000 – 60,000 net additional workers per annum. This is approximately double current net levels of inflow once allowing for attrition in the entry process.

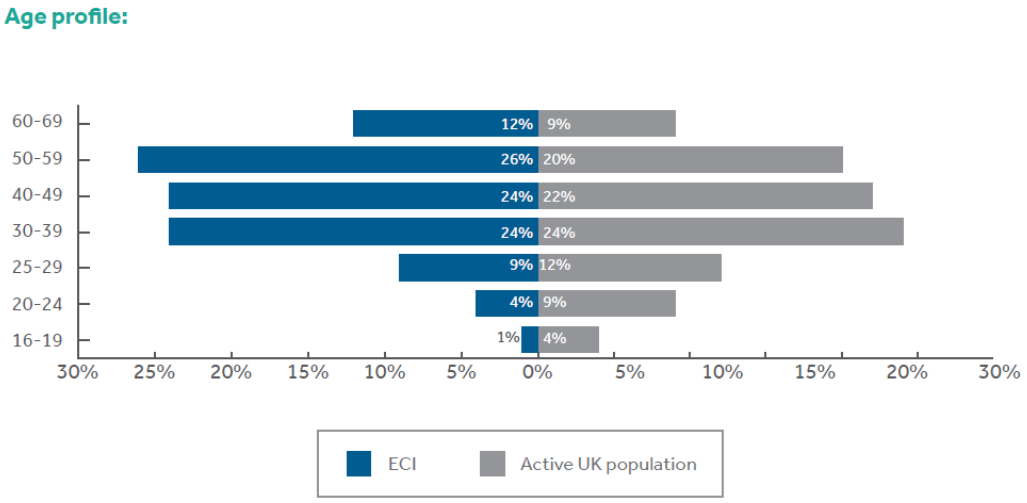
The real situation for age-related workforce erosion is likely to be even worse than above. We know from post 2021 census ONS data that the workforce has dramatically shrunk much further since then (see figure 1 above). In addition, construction tends to have a higher degree of early retirement due to physical or health related drivers. The recent period of high wage growth combined with the pandemic lockdown has also enabled many workers to save more aggressively and fund earlier retirement. Furthermore, over the last 20 plus year period, as set out below, much of the younger cohort of workers

[24] RM062 - Industry by age - Nomis - Official Census and Labour Market Statistics (nomisweb.co.uk)

depicted above have been sourced via immigration, an avenue much less likely going forward and discussed below.

The ECITB has produced its own assessment of sector workforce demographics in its Workforce Census 2021 which has significant parallels to the overall construction figures.

Figure 7: ECITB workforce census 2021[25]



4.2.2 Workforce migrant dependency

The construction industry, especially in London and the South East has historically become increasingly dependent on supplementing its domestic workforce with overseas workers. Over time this has manifested as an acute reliance on primarily central and eastern European workers. This has enabled the sector to deliver its workload without having to invest as much in domestic skills and training. This dynamic also has a correlation with the demographics of the industry. A disproportionate element of the younger demographic proportion of our industry, certainly in London, are EU workers. This has effectively masked the full size of the issue of declining UK domestic new entrants into the industry by supplementing total numbers of workers below the age of 35.

In a post Brexit environment, this has caused tensions in terms of reducing workforce availability in areas of high construction demand. Despite some relaxations following Migration Advisory Committee shortage occupation list inclusions for many construction roles, migrant labour is likely to be seen as a more difficult proposition than it once was and is less likely to be adopted as a route to labour force expansion.

[25] https://www.ecitb.org.uk/blog/portfolio-items/ecitb-workforce-census-2021

Recent government announcements aimed at reducing migration by raising minimum salary thresholds and reviewing shortage occupation lists again could potentially reverse some of these recent relaxations. It now means much more is at stake in terms of actions that need to be taken to build longer term domestic workforce resiliency and reduce historic reliance on migration as a means of accessing either ready trained and/or cheaper workers.

The nature of the migrant worker injection that the industry has benefited from spans qualified or part qualified professionals, skilled tradespeople through to unskilled labourer roles. In the case of the latter, it has been increasingly apparent that many UK born workers do not want to carry out some low skilled tasks that migrant workers have until recently been increasingly relied upon to do. This creates extra fragility at the lower end of the labour market in terms of the ability to attract and retain UK workers to backfill reducing numbers of migrant workers. This should be driving urgent attempts by industry to reduce site labour intensity and improve productivity but for reasons set out elsewhere in this review, the business case led initiators of such change are not yet evident at a mass scale and progress towards modernisation is slow.

The stark reality of the combined migrant dependency and the demographic risk is shown below in figures 9, 10 and 11 which illustrate UK born workers having an amplified ageing profile beyond the non-UK born equivalent cohort for ages over 45[26].

[26] https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration

Figure 8: Age distribution of those working in the construction industry by nationality grouping (2014 - 2016) [27]

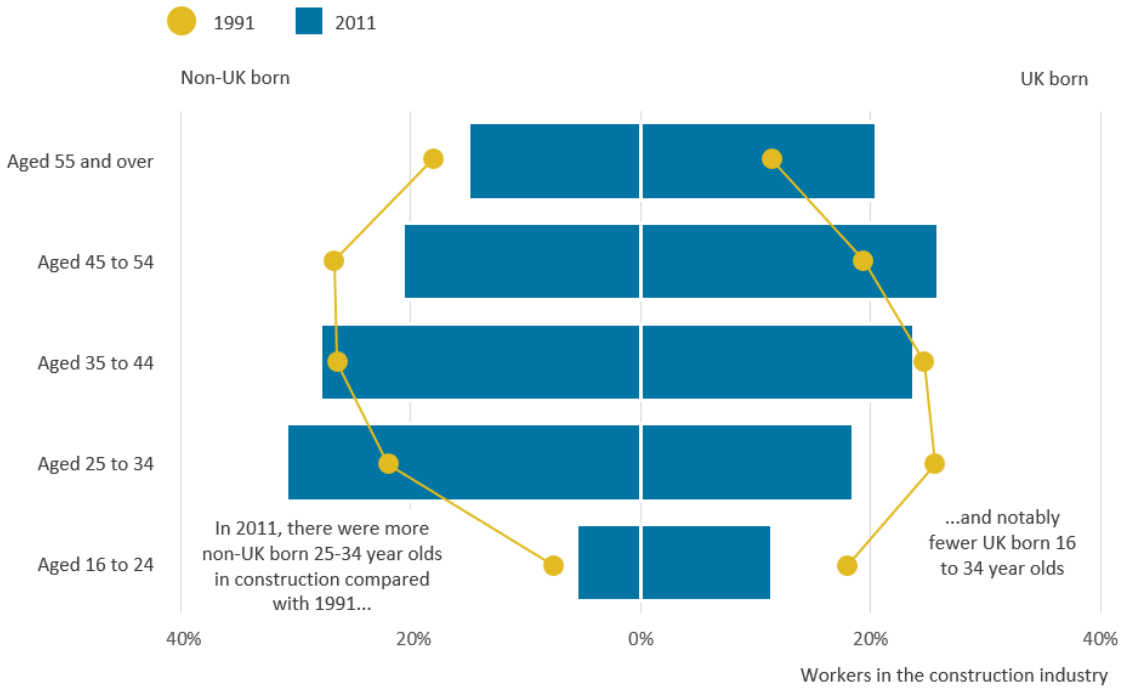
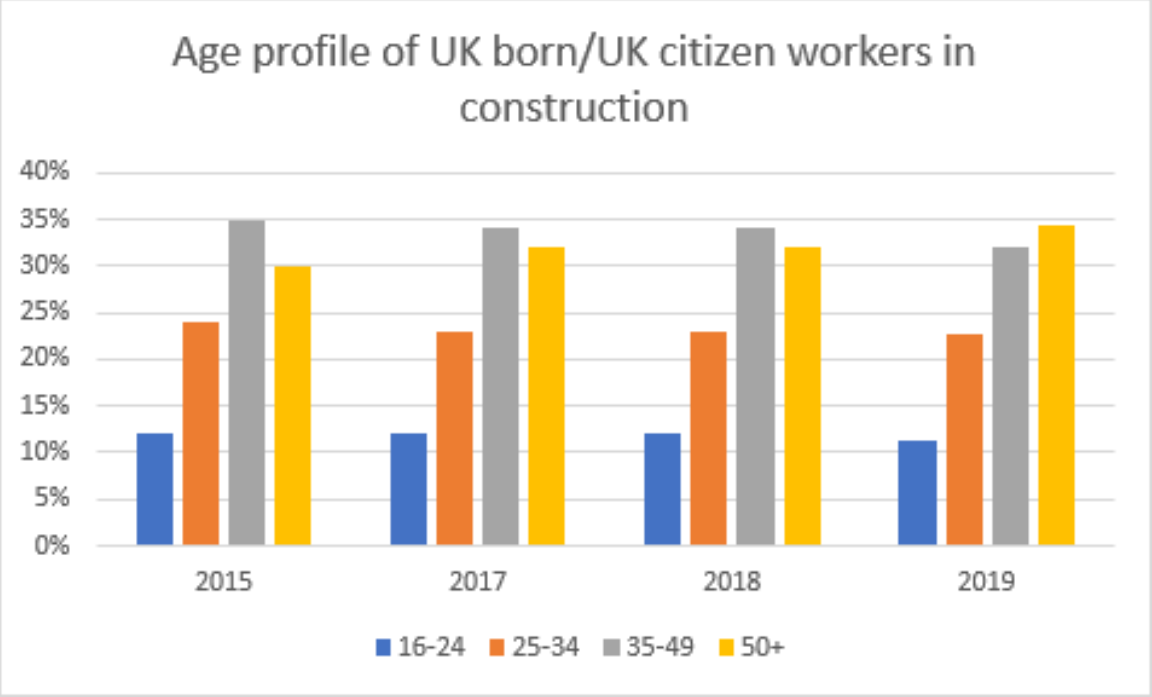


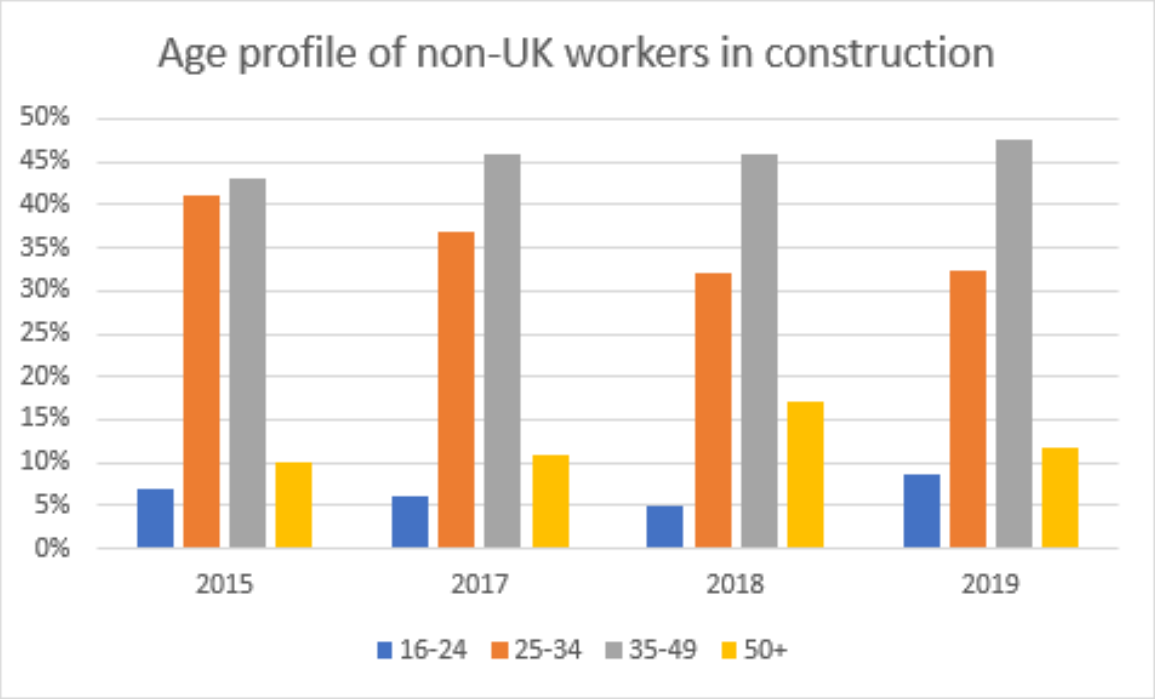
Figure 9: Age profile of UK workers in the construction workforce 2015 - 2019 [28]



[27] Migrant labour force within the construction industry - Office for National Statistics

[28] https://www.citb.co.uk/media/tgfpmy2j/citb-migration-research-2019-the-view-from-employers.pdf and https://www.citb.co.uk/media/zmwo33j2/migration_uk_construction_2020.pdf

Figure 10: Age profile of non-UK workers in the construction workforce 2015 - 2019[29]



4.2.3 Qualification & attainment level

In terms of the job role make up of the construction industry, 57% are elementary level, plant or trade craft operatives. Professional, management and technical roles constitute 33% of the workforce with 10% of the workforce are in support or administrative roles.

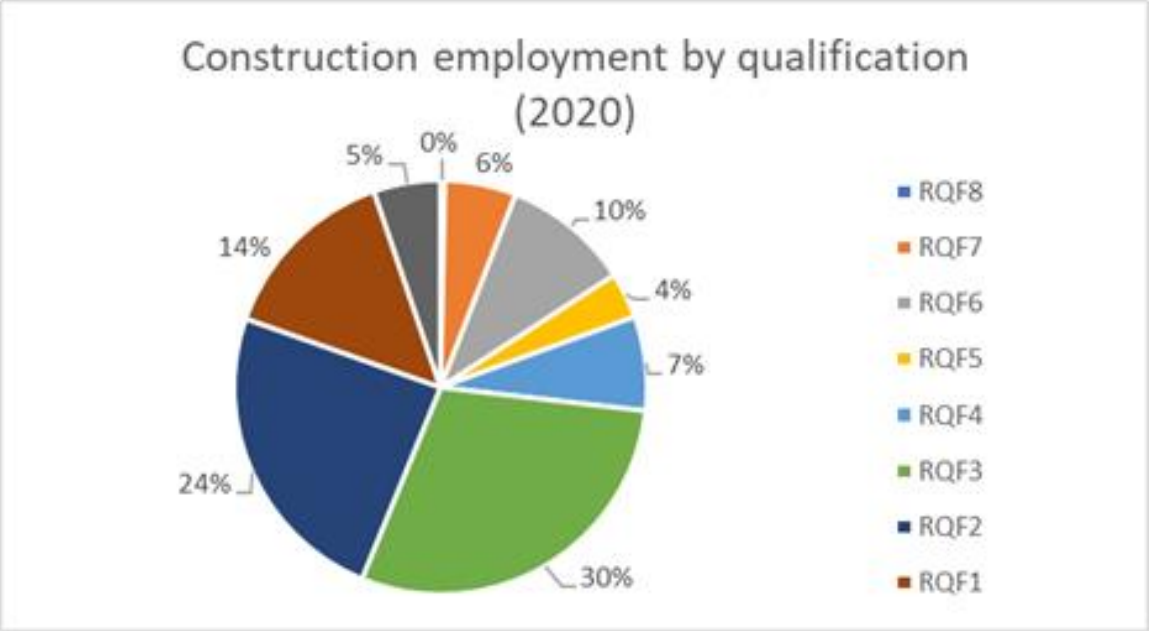
In terms of attainment, 73% of the workforce are at level 3 and below, including 5% who are unqualified. 21% are degree level or above qualified.

Evidence from Construction Skills Certification Scheme (CSCS) card data suggests there are two polarised segments of the carded workforce which bookend the qualification spectrum – those at or below level 3 and those at or above level 6. This effectively represents the trade operative cohort and the professional and technical management cohort, each tending to enter the industry through different pathways. There are much fewer people operating in the mid band levels 4 and 5. This is seen as a weakness in the industry's make up as the bridge between the site-based labourer and trade workforce and its management is currently narrow with insufficient mid-level supervisors, foremen and technicians to enable appropriate leadership and direction, although L3 supervisor, foreman and technician qualifications exist. It is also likely that this mid-tier level is very

[29] https://www.citb.co.uk/media/tgfpmy2j/citb-migration-research-2019-the-view-from-employers.pdf and https://www.citb.co.uk/media/zmwo33j2/migration_uk_construction_2020.pdf

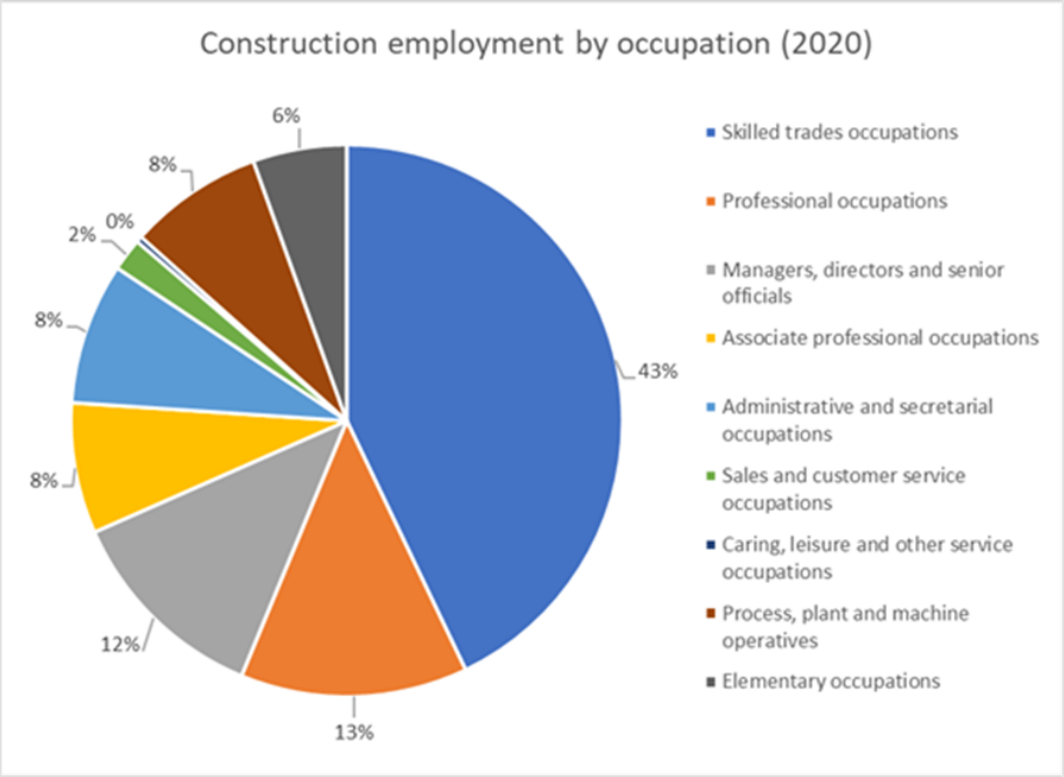
exposed to age-based attrition over the next few years as time served tradespeople who have become supervisors, leave the industry.

Figure 11: Construction employment by qualification (2020) [30]



[30] Labour market and skills projections: 2020 to 2035 - GOV.UK (www.gov.uk)

Figure 12: Construction employment by occupation 2020[31]



For engineering construction, the ECITB 2021 Census showed a sample based occupational distribution as shown in table 1 below.

[31] Labour market and skills projections: 2020 to 2035 - GOV.UK (www.gov.uk)

Table 13: ECITB census 2021[32]

Category	Count
Craft	5,718
Semi-skilled	2,330
Technician	6,546
Supervisors	2,535
Engineers	10,849
Management and professional	11,421
Scientists	347
Support staff	4,492
Other uncategorised	1,113

This shows a very different split to construction between a smaller craft and semi-skilled cohort and a much large technical, professional, and scientific worker cohort. On this sampled basis it would be 20:80 respectively showing the engineering construction sector has a higher average attainment level based purely on relative proportions of its in-scope workforce.

4.2.4 Geography

It is also noted that there is a heavy geographic concentration in construction with 87% of the UK's workforce living and / or working in England and 30% just in London and the South East of England[33].

In engineering construction, the ECITB 2021 workforce census shows just 17% of the engineering construction sector's workforce being based in London/ South East[34].

Workforce disposition is relevant in terms of the location of training needs but also underlines the tensions in delivering major set piece projects in remote locations away

[32] https://www.ecitb.org.uk/wp-content/uploads/2021/12/Census-Report-1.pdf
[33] Construction statistics annual tables - Office for National Statistic
[34] https://www.ecitb.org.uk/wp-content/uploads/2021/10/Census-Report-1.pdf

from the available workforce. This has been evidenced on projects such as Hinkley Point C in Somerset and is likely to repeat for Sizewell C.

4.2.5 Mobility

With such a project-based pipeline, there is a heavy reliance, especially for site operatives, to be geographically mobile as a matter of course. The trends however are worrying regarding reducing labour force mobility, potentially making worse the ability to geographically align any mismatch between skills supply and demand.

By 2022, a measure of the furthest distance travelled by construction workers in the last 12 months showed a reduction compared to 2015, and that:

- in 2022, 33% of all construction workers worked no more than 20 miles away, up from 26% in 2018/19 and 20% in 2015 (CITB 2023)
- a further 33% worked between 21 and 50 miles away, in line with previous years (32% in 2018/19 and 31% in 2015) (CITB 2023)
- 32% worked more than 50 miles away from their permanent or current home, lower than the 41% in 2018/19 and 47% in 2015 (CITB 2023)

The average journey distance to work for construction workers has also been on a downward trend since 2012:

- the average distance from workers' current residence (considering temporary residences) to their current site in 2022 was 17 miles, down from 18 miles in 2018/19, 22 miles in 2015 and 28 miles in 2012 (CITB 2023)

4.2.6 Diversity & inclusion

It is well recorded that the diversity and inclusiveness of the industry is poor and that strategies that look to tackle this are often impacted by behavioural and cultural issues. There are many initiatives being pursued to attempt to rebalance this position and some progress is being made. It is recognised by this review that the lack of diversity is also impacting the cultural DNA of the industry and perpetuates external perceptions that reduce attraction to a more diverse talent pool in what is a vicious circle. This issue also extends to the poor mental health often associated with the industry reflected in one of the highest suicide rates. Much of this is a function of poor behaviour, weak people management skills, workplace stress, all played out in what is an often highly adversarial environment.

In terms of gender balance specifically, the female component of the workforce runs at a rate of about 16% overall[35] but this masks a very low level of female on site operatives (anecdotally at 1 - 3% across trades) whereas in professional and technical services the proportion is higher at 25 - 30% and even higher in administrative and sales and marketing roles. This is an indicator of an artificially constrained talent pool in some of the areas of biggest shortages where construction is only really recruiting from a proportion of the available population. In Engineering Construction, the 2021 census shows 14% female representation. It is also fair to say that a slight improvement in the female proportion of the workforce over the last decade or so might have more to do with declining male numbers rather than any significant uptick in women coming into construction.

From an ethnicity specific perspective, it is a similar story of imbalance, with only about 4-5% of the workforce from an ethnic minority background.

There is a large opportunity to further expand not just gender and ethnic diversity but the overall socio-economic diversity of the workforce, irrespective of gender or ethnicity. This requires a wider maximising of the potential for more disadvantaged and harder to reach parts of society to enter the workforce and remain in sustainable employment with opportunities for progression. This review has heard that this is not without its challenges. It is important the industry is not just seen as a default or a last resort for those that are not hardwired into the mainstream skills system or who cannot align to the behavioural expectations of a new industry competency led model. However, expanding industry resources clearly has social value creation potential in a way that other industries cannot match as well as clearly being a partial solution for the industry's capacity problems. This is particularly relevant considering the industry's wide range of attainment entry levels.

Although there is lots of current activity related to changing the nature of the workplace by improving and diversifying the nature of the working environment, the culture and the often-required level of physicality for site operatives means this is a slow process and one that is linked to bigger picture drivers for change. It is notable that the sheer size of the workforce quantum challenge the industry is facing, combined with an honest reality check on the low likelihood of the industry step changing its ability to attract a fundamentally more diverse workforce in greater numbers means workforce diversification is only likely to be part of the required overall solution.

In conclusion, despite recent progress, the industry continues to have a fundamental problem with workforce diversity and inclusiveness, especially at site level. This means there is clearly a continuing challenge of broadening talent pools and accessing more,

[35] EMP13: Employment by industry - Office for National Statistics (ons.gov.uk)

appropriate resource. There is a need however to be more honest about future impact on the core make up of the workforce and reflect on where effort is best spent in relation to diversifying with true additionality and avoiding tokenism.

4.3 Workforce employment model

The industry has a large proportion of self-employment. This is in the order of 783,000[36] (36% of all workers) but is heavily skewed towards the site tradespeople cohort. CITB research[37] indicates a slightly higher proportion of migrant workers (44%) who are self-employed relative to UK workers (37%).

In engineering construction, self-employed contractors represent a smaller but still significant proportion of the workforce at 22% of the total.

This situation is a legacy of long-term differential tax policy and what are now established norms of sub-contractor employment models further accentuated by the industry's reluctance to directly employ (particularly construction) due to demand cyclicality.

There have been recent signs that levels of direct employment are increasing across the industry, perhaps driven by a realisation that businesses need more control over their labour force, but this trend is not of a scale to fundamentally change the ratios above. Also, any trend towards payroll expansion is likely to be slowed down by the current downturn in construction activity.

The basic employment model has also meant there is a clear decoupling of wages relative to worker productivity in large parts of the industry. In periods of growth and labour scarcity, the more mobile, self-employed workforce will drive up wages based on demand rather than productivity. There are some exceptions where incentives and bonusing might link remuneration to output, especially in some site trades but this also brings with it a greater need for competency and supervision so quantity is accompanied by quality. It is by no means a certain proposition that when industry is in a growth phase that wages are always determined by competency and quality assured productivity rather than just need. As referenced in Section 4.4 below, this becomes much more likely in a contraction phase in the market when employers are able to be more discerning on their qualitative labour assessment.

Self-employment can also create a risk of behavioural challenges as part of competency establishment and maintenance. This includes the potential for some workers not to feel committed to a positive end project outcome or having a collective sense of

[36] EMP14: Employees and self-employed by industry - Office for National Statistics (ons.gov.uk)

[37] final-english-migration-report-june-2023.pdf (citb.co.uk)

responsibility. It is also clear that the propensity for workers to become self-employed, especially once trained to a certain standard is an active deterrent to investment in training and development. It reinforces the ‘free rider’ problem of some employers relying on others to invest into training workers and then benefiting from the end product of that investment once workers become self-employed or decide to move jobs.

4.4 Workforce productivity

Size of the problem

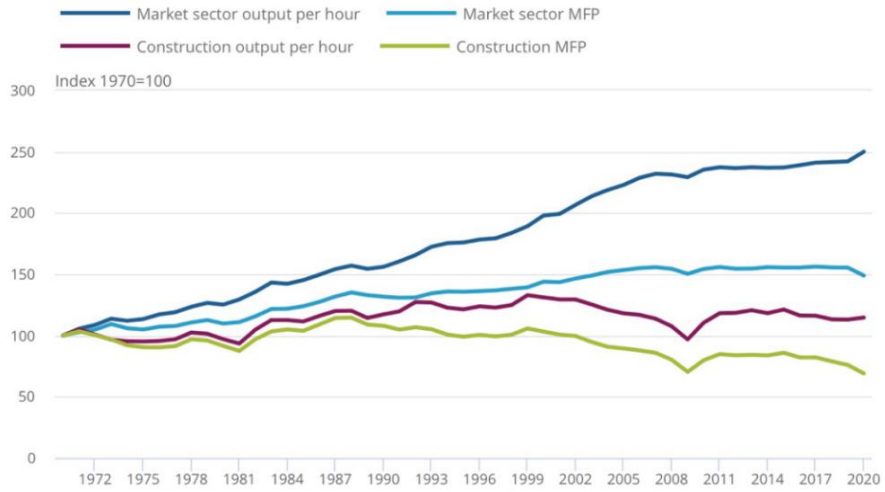
The construction industry has consistently struggled with poor productivity at a macro level and at a project level. The reality is that poor productivity in a labour-intensive industry with very real resiliency risks going forward should be of great concern to the industry, politicians, and indeed wider society.

Figure 14 below puts this in perspective and indicates the long-term productivity lag between construction and the wider ‘secondary’ economic market sector (which includes manufacturing), on both an output per hour and multi-factor productivity (MFP) measure. The latter MFP measure is picking up the level of holistic efficiency in the way in which input resources are deployed beyond just value of output per hour and reflects general waste and process inefficiency. MFP for construction is in decline over the long run, reaffirming concern over the industry’s gross input to net output and how this is forcing the labour market to work harder just to stand still.

The ability to continue labour intensive and wasteful operations is going to be increasingly challenged by labour scarcity and the linked viability impact of wage inflation. There will also be increased scrutiny related to wider environmental considerations, including a need for embodied carbon reduction, which correlates to onsite labour process intensity and productivity.

Within construction’s sub-sectors, only civil engineering has an output per hour higher than the UK economy industry average. This is potentially a reflection of the greater ratio of plant and materials to site labour involved in such work. There is also a higher average capex on infrastructure projects, creating economies of scale in things such as design and management rather than reflecting any great difference in levels of capital deployment and digital technology in civil engineering compared to building construction. It is not clear what the comparable position is for engineering construction as productivity figures are merged with manufacturing.

Figure 14: Output per hour worked and multi-factor productivity (MFP), construction industry and rest of market sector, UK, 1970-2020[38]



Drivers for change

The wider drivers for modernising and investing in technology and capital equipment to enable new processes have largely been absent from the construction industry, influenced by the cyclicality of its operating environment and cultural resistance to change. The imperative for higher productivity until now has never materialised at scale and businesses have accepted high levels of waste and inefficiency despite it being a cost to end clients and a downward pressure on margins.

There is evidence that recent labour market pressures, especially in London and the South East, as well as looming regulatory changes in building performance have started to influence thinking in the contracting and housebuilding sectors, with an incremental move towards digital technologies and Modern Methods of Construction (MMC) adoption. Progress is slow, however, the more subtle changes starting to happen are slowly lifting the pre-manufactured value (PMV)[39] proportion across many projects and this inherently has site workforce implications in terms of future size, shape and competency base as technical solutions and site-based construction techniques gradually evolve.

PMV reflects the ratio between costs of site labour and process relative to manufactured goods delivered to site. It can be raised by improving site productivity without additional pre-manufactured content – ie by just doing things better and more efficiently requiring

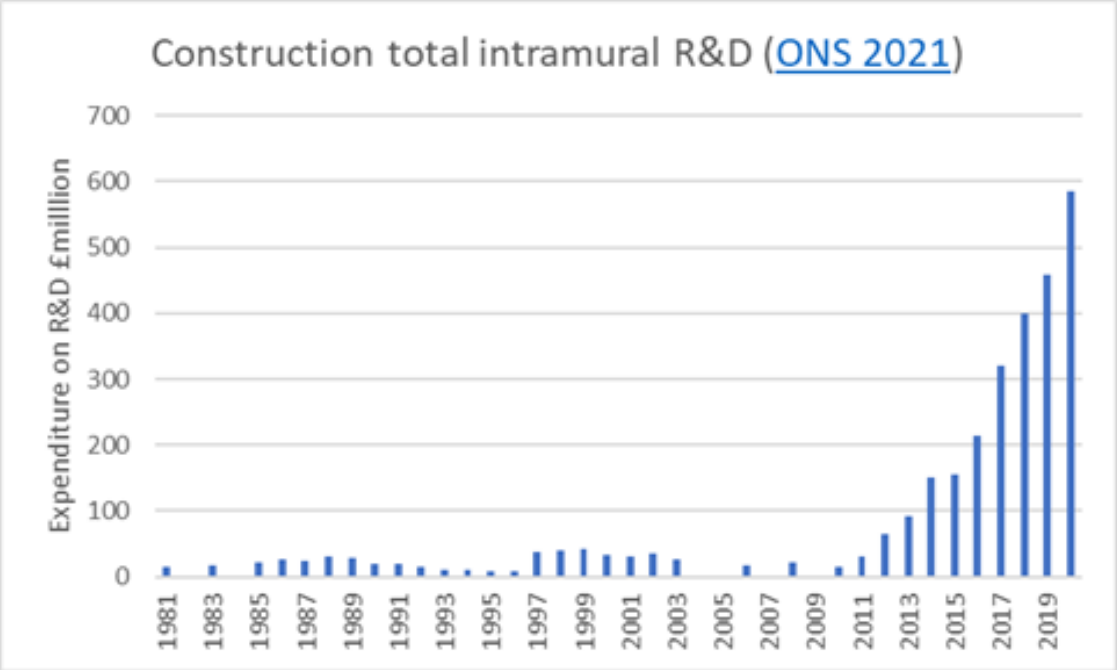
[38] https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/articles/productivityintheconstructionindustryuk2021/2021-10-19

[39] https://www.cast-consultancy.com/knowledgehub/toolkit/pre-manufactured-value-pmv-estimator/what-is-pre-manufactured-value-pmv/

less site labour per unit of output. This should be an equal priority of the industry alongside pre-manufacturing more components and assemblies but has been difficult to achieve due to the myriad of moving parts that influence the attainment of that goal.

That does not mean the industry has not been exploring how it can change to deliver better and differently. Figure 15 shows the extent of R&D uplift that has been seen in the construction industry, and it is noticeable that this has ticked up since Transforming Construction, perhaps helped by a supportive HMRC R&D tax Credit policy.

Figure 15: Construction total intramural (1981 - 2019)[40]



Productivity, workforce quality & competence

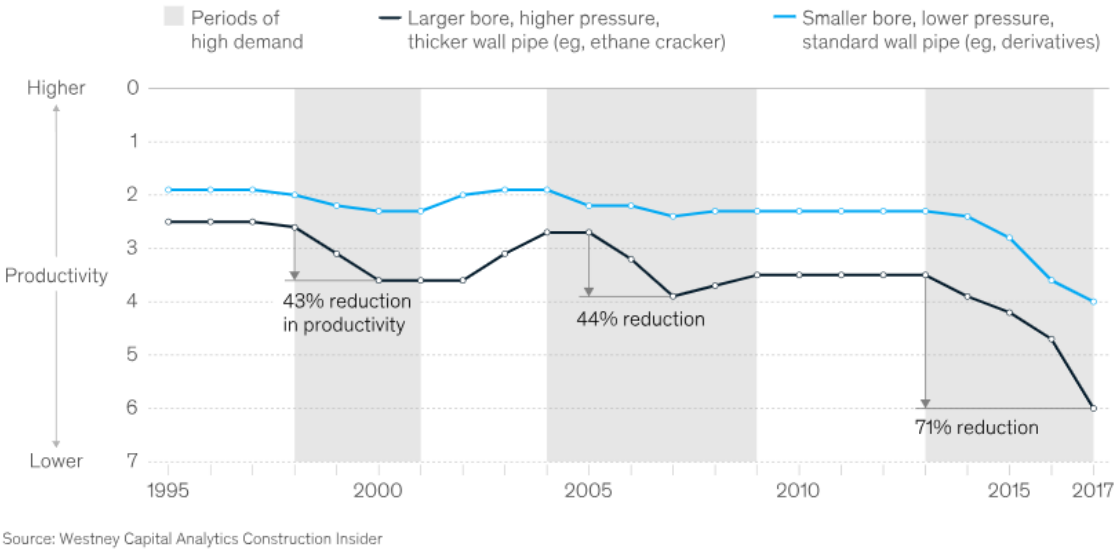
Some will argue that despite some progress in the average attainment level in construction, productivity has not improved commensurately, challenging any assumption that there is a cause-and-effect linkage. The reality is that this is probably more about whether qualifications and attainment as currently configured do truly represent competency and therefore ability to improve productivity.

There is also a school of thought that sector productivity is correlated with periods of labour market stress. This suggests that in growth periods, productivity deteriorates and then improves in recessions or lulls in the market. This would seem to be linked to the fact that in an expansive labour market, there is a greater proportion of untrained or partly trained resources who are seen as less competent and productive than time served core

[40] Regional UK business research and development, methods - Office for National Statistics (ons.gov.uk)

workers who are retained during a downturn. This might be a reason for a UK construction productivity increase post global financial crisis, 2009-2011 in figure 14 above. This is also potentially evidenced in this analysis of the US shale market via McKinsey in figure 16 below.

Figure 15: US Gulf Coast piping productivity for major process-industry projects[41]



Source: Westney Capital Analytics Construction Insider

McKinsey & Company

Industry productivity needs to be seen in the context of not just inefficient, site based working but also wider issues with industry structure, procurement, planning, public sector spend profiling or indeed just environmental factors such as poor weather.

The issue of lack of productivity and competency is often captured in the term ‘skills gap’. In 2021, 33% employers in construction suggested they had skills gaps[42]

Some relevant observations are that:

- common causes of skills gaps cited by employers were ‘staff are still in training’ (59% of employers) and ‘staff lack experience, or they have been recently recruited’ (26% of employers)
- there is an impact of skills gaps on business performance: 16% of construction firms identified a major impact, 40% identified a minor impact and 45% identified no impact
- in response to skills gaps, most employers outsourced work, increased the use of

[41] Solving US construction's worker shortage | McKinsey

[42] https://www.citb.co.uk/media/wnpb2l0k/citb-skills-and-training-report-2021.pdf

overtime or lost business/turned down bidding for work

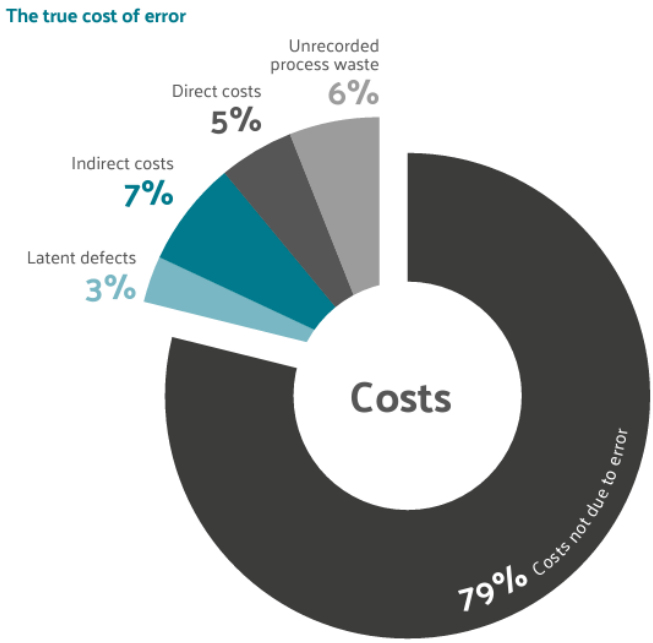
There has been increased interest recently in recognising the role of productivity improvement as more than just an abstract concept or something purely related to a manufacturing and digital transition. This includes what this means for individual businesses and their workforces from the boardroom to the site. There are key roles for clients and advisors in setting projects up for higher productivity and also the downstream role of mid-tier site management and supervisors in influencing the at scale site operative workforce.

The Construction Productivity Taskforce[43] has been seeking to drive this into industry practice across clients, consultants, and contractors and the CLC has also recognised productivity as a strategic theme.

There is an important relationship to consider between productivity, competence, and propensity for errors. Figure 17 below (using November 2015 data and based on a Get It Right Initiative study of seventeen major construction organisations including clients, consultants, contractors, and their supply chains) indicates that for those major construction organisations, **over 20% of extra cost is incurred through rework due to human derived error,** all of which also has time and resource implications. It is vital therefore that productivity is viewed qualitatively not purely as a unit output measure. The inability to execute work right first time is having a direct impact on bottom line productivity and in many instances business performance. It can also be linked to the thorny issue of payment retention and its systemic abuse. The reality is that an assured, competent workforce will make arguments for ongoing use of retention to securitise against defects rectification or other failures less robust.

[43] https://www.bethebusiness.com/construction-productivity-taskforce/

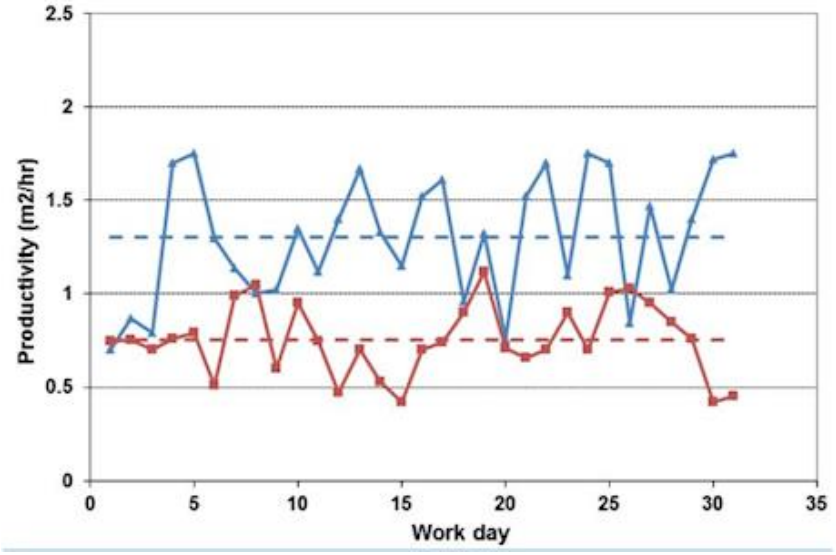
Figure 16: Costs due to error[44]



Focusing further on worker competence and quality, Figure 18 below via BSRIA shows that the average productivity of two gangs on the same site doing identical jobs under identical conditions at the same time can differ by as much as 75%. This reaffirms that worker quality can be a major determinant of productivity and output. The inference therefore is that large-scale training that can influence this has huge potential to improve industry capacity.

[44] Home | Get It Right Initiative

Figure 178: Effect of quality and training of labour force[45]



This implied link between productivity and competency is therefore considered very relevant for the findings of this review and its conclusions. It is noted that there is current activity being initiated by CLC with GIRI and Cranfield University to capture and measure a new project completion metric across the industry, the Error Frequency Ratio (EFR) and this is in addition to attempts by the Construction Productivity Taskforce to initiate larger dataset collection. The reality is though that the industry does not have a natural propensity to share such information due to its sensitive nature in relation to contract performance.

In terms of outcomes, the maxim is if you can't measure it, you can't improve it so the ability to underpin this debate with metrics is important to charting industry's progress and assessing the impact a future ITB model is having.

A further observation on worker quality relates more to management and professional services roles. In the growth phase of the last economic cycle, people have been moving jobs for both a pay rise and a promotion. This increases the risk of role or grade inflation leading to some people being promoted into senior and influential roles that they are not truly qualified or competent to perform. This impacts not only their own performance but importantly, those of others. It also creates a longer term payroll and capability legacy for the industry that perpetuates wage inflation without commensurate productivity improvement whilst potentially also negatively impacting quality of outputs.

In conclusion, it is felt by this review that there is an important need for any future ITB model to identify and enable as a priority the most impactful competency and training

[45] https://www.bsria.com/uk/news/article/construction-labour-productivity-identifying-the-causes-of-trends/

activities that will reduce error, improve productivity and worker quality at an individual, team, business, project and ultimately an industry level.

5. Strategic analysis

This section frames the primary strategic themes which the review believes determine firstly the need and if relevant the role of an ITB model intervention. This section primarily relates to testing the ‘efficacy’ quadrant of the ALB Review analysis model.

5.1 The case for intervention

This review has found that on balance there remains a requirement for an external intervention into the workforce development activities of both sectors. This is in response to an ongoing market failure in propensity to invest in the workforce. In turn, this finding is heavily influenced by the significant role played by both sectors in delivering the UK’s critical national infrastructure needs, their contribution to GDP and therefore represents what the review believes is a wider public interest consideration.

There can be no definitive proof of what would happen if there was no ITB or associated levy grant system unless you withdraw it. The answers given in evidence gathering have largely leant towards the view that an intervention is still required, however unpalatable to some, to prevent a further decline in human capital investment.

However, feedback from evidence also shows insufficient links between ITB activity and the level of positive outcomes needed to prepare for challenges ahead as set out in Section 4 above. In addition, some areas of potential inefficiency and misplaced priorities in delivery of activity have been identified. This is the basis of the conclusion that an ongoing market intervention is still needed but that wholesale transformation of that intervention is urgently required, extending to repurposing the ITBs themselves.

It is important that any changes proposed should quickly build on the good things that are happening and which have been showcased in evidence. There is a critical need to enable these exemplar activities to be scaled up quickly as well as augmenting the overall approach with fresh thinking which might take longer to implement.

In conclusion, the downside risks of moving away from an interventionist model are significant. The unused potential of the statutory levy grant system means this review’s preference is to use the existing ITB legislative mandate including statutory levy collecting powers as the start point for driving immediate change.

5.2 Evidencing tangible industry impact

A 2003 analysis of various international training levy and incentive models[46] identified common characteristics across 15 different schemes, including the UK's ITB model. It found:

- they often have limited or inequitable end impact tending to favour larger firms and higher skilled employees
- they are more effective in periods of economic growth
- they sometimes lead to inappropriate training driven by desire to recover levy rather than strategic need
- efficiency and transparency are key and require strong governmental scrutiny to ensure value

Although the referenced study is 20 years old, it has reinforced this review's desire to see evidence not of inputs but of measurable outcomes. There is a real risk of ITBs being 'busy fools' and in so doing using public money ineffectively. It is worth noting that this does not necessarily mean ITBs are not doing things that employers want. There is an associated challenge here to what employers are actually asking for driven by their desire to recover levy funds based on their own needs not necessarily those of the industry at large. There is no doubt that significant activity is happening in the field of training, but the overwhelming sense is that it is not making inroads to the growing problems of both a workforce gap (quantum) and skills gap (capability misalignment).

A question that the review has sought to answer is identifying the relative total impact of ITB funded training compared to what industry is spending of its own accord. There is no robust and reliable data to answer this. Nor is there any reliable data on where in the supply chain, employers are funding their own training outside of ITB levy support, including the sectoral classification of businesses and distribution from large to small employers. This evidence gap makes it difficult to assess the financial additionality of ITB funding relative to an industry self-funded baseline. Intuitively, larger employers have more capacity to fund their own training and confirms that the direction of required redistributive impact for an ITB levy should be towards smaller employers.

One of the starting points for evaluating workforce impact is to look at the shape and size of the interventions being made by the ITBs relative to the size of the workforce, and particularly the in ITB scope workforce. This exercise is not capable of proving end outcomes in relation to workforce quality and quantity but is a useful input measure of the

46 https://documents1.worldbank.org/curated/en/705121468779070378/pdf/301290REPLACEM1iningLevies01PUBLIC1.pdf

bandwidth of the ITBs in a training and upskilling context. A summary of in scope businesses, workers and total interventions is shown in table 2 as below.

Table 2: Businesses, workers and ITB interventions in each sector

	Businesses - industry total[47] [48]	Businesses - levy registered	Workers - industry total[49] [50]	Workers - in-scope[51]	ITB interventions total
CI	366,385	77,000	2,152,000	975,000	2,338,454
EC	1,500[52]	280[53]	190,000	90,000	93,744

CITB

The further breakdown of CITB's interventions is set out in table 3, below. This confirms a broad array of data points. It should be noted firstly that the total intervention number of over 2.3 million is heavily skewed by inclusion of Go Construct website hits and Health & Safety related training (1.98 million of total). Technical competency building as part of an occupational role is therefore a much smaller proportion of the overall.

Table 3: CITB learning interventions 2020/21 - 2022/23

Interventions	20/21	21/22	22/23	Total
Apprenticeship Grants	23,322	22,919	26,200	72,441
Qualification Grants	12,712	16,929	14,186	43,827
Short course grants	120,242	166,671	173,221	460,134
Skills & Training fund - medium-sized businesses	Not collected	-	-	-
Skills & Training fund - small & micro businesses	Not collected	-	-	-

[47] UK business: activity, size and location - Office for National Statistics (ons.gov.uk)

[48] ECITB return to the ITB Review December 2023

[49] EMP13: Employment by industry - Office for National Statistics (ons.gov.uk)

[50] EC02-ECITB-CEBR-Report-FINAL-23.01.18.pdf

[51] CITB return to the ITB Review November 2023

[52] This is an estimate based on data from 2018 and 2019 (Companies House info and SIC / SOC code analysis). Many of these employers are out of scope of the ECITB levy as are not 'wholly or mainly engaged' in engineering construction activities.

[53] ECITB Annual Report and Accounts 2022

Interventions	20/21	21/22	22/23	Total
NCC National Construction Colleges	5,289	9,301	10,608	25,198
NCC National Specialist Accredited Centre (NSAC)	1,420	1,202	1,125	3,747
CITB Funded Training Groups	Not collected	-	-	-
Employer network pilot - CITB	N/A	N/A	3,567	3,567
Health, safety & environment test and cards	363,388	469,517	497,552	1,330,457
Site Safety Plus Courses for Construction Skills	121,834	162,246	168,644	452,724
Apprenticeship Courses at the NCC - CITB	2,153	1,766	1,809	5,728
Commissions Funded projects	16,920	16,121	88,704	121,745
Go Construct and SkillBuild	500,280	1,297,725	1,319,812	3,117,817
STEM Ambassadors	N/A	17,850	13,050	30,900
Talentview Construction	Not collected	Not collected	4,827	4,827
Tasters	N/A	N/A	14,145	14,145
On Site Job Starts	N/A	510	1,004	1,514
Current Total	1,167,560	2,182,757	2,338,454	5,688,771

From analysis of ITB accounts, it appears that CITB fund distribution is largely dictated by which employers have mastered the administration of the grant application process. In the 2021/22 accounts, it is recorded that just 15 organisations recovered nearly 17% of total grant distributed. These organisations were a mixture of large tier one contractors, major housebuilders, and some other organisations assumably running programmes through structured and flexible funding as well as taking on apprentices. It is also noted that one sector of the construction industry which appears to have some of the lowest

levels of support for CITB - housebuilders, has the three largest national volume housebuilders in the top 6 of individual industry wide total grant recipients in 2021/22.

The CITB's Industry Funding Committee, an important part of the machinery of shaping where CITB's strategy meets the industry has a membership skewed towards medium sized businesses and lacks direct site operative voices. Although not a criticism of the current membership a question must be raised on how appointments are advertised and selected based on deepest penetration into the market which in turn would help with followship and buy in.

Similarly, the Levy Strategy Committee membership does not necessarily appear to reflect the real voice of the majority of the industry when it comes to the day-to-day issues faced by 77,000 registered employers.

It is recognised that it is difficult to capture honest, direct feedback from micro-SMEs and to get balanced unemotive responses that can help shape change. However, that is the nature of the challenge in establishing an appropriate governance regime which makes the ITBs more accountable to its levy payers and the productive workforce as opposed to the management led companies or other intermediaries that rely on the production led workforce for their own business model. This challenge is all about the communication and engagement strategy adopted.

On a macro scale in construction, of the 77,000 registered companies, only 13,950 firms (18%) received any grant whatsoever. In evidence, one major construction trade body shared that only 50% of its levy paying membership access any grant. It is unclear what these statistics mean on a total industry headcount influenced basis, but the inference is that it is of similar proportions.

It has been noted by CITB in 2021 that 31,000 companies in construction are below the threshold for paying levy but represent a priority support area. There is no data on how many of the smallest businesses as non-levy payers are within the 13,950 firms receiving grant.

Table 4 below provides details of the number and value of CITB grants claimed by employers between 2018/19 and 2020/21. It demonstrates that micro, small and medium employers received around 67% of total grants support which supports the notion of a redistributive profile. Large employers also received grants for training, but the balance of grants paid reflects the nature of the construction industry: that smaller employers carry out a substantial amount of training and train more apprentices than large employers. The question remains as to whether the type of training being primarily supported, grant funding new apprentices, is the most impactful in terms of addressing industry wide capacity challenges.

In 2021/22 there were 47,744 total grant funded training 'outcomes' which are defined by CITB as 19,823 apprenticeships, 15,752 vocational qualifications and 12,169 plant tests (this is before the impact of CITB wider programme-based funding) These outcomes

were supported by £78.8m of grant equating to £1,650 per capita average of funding for the spectrum of support. This also means that the average annual grant funding per grant receiving employer was £5,650.

Table 4: CITB grant payments made by size of employer (2018/19 - 2020/21)

Employer Size	Average number of employers receiving grants p/a	Value of grants by employer group	Number of grant supported Apprentices[54]
Micro (0-9 employees)	13,739	£56.5m	14,480
Small (10-49 employees)	6,557	£58.8m	11,230
Medium (50-249 employees)	1,555	£65.6m	8,368
Large (250+ employees)	289	£90.2m	10,056
Other (unspecified/new registrations)	541	£3.1m	1,450
Total	22,681	£274.2m	43,973

ECITB

In 2022, ECITB made £19.3m of grants to employers to support training and development of their workforces. 95% of levy payers received training grants while 60% of registered employers who did not pay the levy because they are smaller businesses whose workforce payments fell below the minimum threshold, also accessed ECITB grants[55]. These grants to non-levy payers equated to 15% of all grant recipients.

Of the levy payers who received grants, five employers or employer groups recovered nearly 35% of the total grant distributed. The clustering of spend on large employers in engineering construction is perhaps more reflective of the shape and context of their

[54] The total does not correlate to the individual size totals as some apprentices move between employers during their apprenticeship and have been counted against each size group. The total reflects the distinct count of apprentices.
[55] The Industrial Training Levy (Engineering Construction Industry Training Board) Order 2023 (legislation.gov.uk)

industry with major employers spanning Engineer Procure Construct (EPC) delivery, consultancy and major end asset owning employers.

In 2022 the ECITB reported 90,873 learning interventions – see table 5 below for a breakdown. It is not possible however to assess what this means in terms of number of recipients reached and depth of impact as there will be cases of multiple interventions per head and a vast range from short courses to more fundamental qualification attainment. Ultimately the measure of outcome should be competency improvement.

Table 5: ECITB learning interventions (2020 – 2022)

Learner support	2020	2021	2022	Total
Grant funded learner interventions on ECITB licensed products	3,846	4,294	5,068	13,208
Total learner interventions on ECITB licensed products (incl. CCSNG safety passport)	34,063	37,478	41,162	112,703
Grant funded learner interventions on non-ECITB training	24,657	41,766	49,581	116,004
Courses completed on the ECITB's Learner Experience Platform (LXP)	N/A	N/A	130	130
Grant funded learner interventions on ECITB licensed products	3,846	4,294	5,068	13,208
Total learning interventions	58,720	79,244	90,873	228,837
Scholars supported in year	128	210	100	438
Apprenticeship starts	399	646	782	1,827
Graduates supported in year	277	504	558	1339
Train to Retain		504	N/A	504
Total	**59,524**	**81,108**	**93,744**	**232,945**

Reprioritising funding across both ITBs

Irrespective of the data shown above, the deteriorating macro picture set out in Section 4 indicates that construction is faring worse than some other sectors and at very best is just

keeping up. This is ultimately underlined by the proportion of total UK employment that the sector takes has fallen by over 2% since 2008. This is the most basic measure of confirming that in tight labour market, construction is not maintaining its position in the long term, at least on an attraction and retention basis, ITB activity is therefore arguably not working in one of its most fundamental aims.

The last government Employer Skills Survey in 2022[56] analysed skills gaps across the economy. The term *worker proficiency* was used to measure this relative to the occupational requirement. The skills gap density for construction (percentage of workers not proficient within the sector) appears to have worsened between 2017 and 2022. This implies there has been a deterioration in the quality of the workforce despite the existence of the ITBs which other sectors do not have the benefit of.

Although there is obvious subjectivity in what employers deem to be a skills gap or not, many of the respondents will be end levy payers so these statistics must call into question whether, at the bottom line the ITB model is tangibly impacting workforce development beyond out of sector benchmarks.

To reverse this, a different approach is needed to funding and supported activities. An important area of funding reprioritisation going forward should be the split between supporting the training of new entrants versus support for the upskilling of the industry at large. Further decisions need to be made on what costs employers should individually bear or seek from alternative sources such as apprenticeship levy. A more general finding of this review is that there is insufficient transparency of the ITB levy–grant system including its interface with other funding sources. This is required to better inform this analysis and should be addressed.

There is an urgent need to identify multipliers or aggregators that drive the impact of funding further into the supply chain. It is unclear on the evidence available as to whether the current profile of grant funding is generating the right broader impact. There needs to be clear evidence of driving benefit downwards to where it is most needed and increasing the total number of individual improved outcomes in skilling, reskilling and upskilling across the total employed in scope workforce. The challenge of a more holistic connection with the wider in scope workforce is considered by this review to be a critical success factor in any transformation programme.

For construction, an industry that employs over 2 million people, constituting over 360,000 businesses (albeit not all in CITB scope) there appears to be a fundamental outreach and affordability gap which stands in the way of any mass scale up of impact

[56] Employer Skills Survey , Calendar year 2022 – Explore education statistics – GOV.UK (explore-education-statistics.service.gov.uk)

without a change of approach. To fund for instance 500,000 – 1 million existing workers on a multi-year programme of skill, upskill, and reskill interventions will require a fundamental re-budgeting exercise.

There is a basic need to re-prioritise and re-balance the distribution of funding between formal apprenticeships and a spectrum of other qualifications and competency building activity. This will, as already stated, be contingent on much more apprenticeship levy drawdown, allowing more ITB levy funding for wider training. This will in turn test occupational standard alignment and industry buy in to ensure apprenticeship levy can be fully deployed.

Funded training also needs to be more focused on filling strategic industry workforce gaps rather than simply supporting statistics of funded interventions and responding simply to employer requests for grant.

This funding re-prioritisation will also possibly mean that some large employers will get less back than currently in order to help cross subsidise broader reach and forced redistribution. This is recognised as potentially being contentious but larger businesses undoubtedly have a disproportionate role in acting in the collective wider interest of the industry.

5.3 Being more accountable for outcomes

This review has heard evidence that there are shortcomings in the governance and accountability framework within which the ITBs operate. These perhaps are perpetuating a failure to address the true big picture issues which both sectors are facing, albeit the nuancing of this problem is different between each ITB.

Some of this relates to the consequences of setting inappropriate KPIs and is then compounded by missing those KPI targets. There is a general sense of a lack of accountability for real industry outcomes through the wrong choice of KPIs, complicated by a constant recalibration of business plans and strategies (some of which has rightly been initiated to address the pandemic).

For CITB, in their latest reported accounts, progress against KPIs chosen have been assessed against survey information from levy payers. This is based on a regular sample survey of circa 1,500 employers. This shows a downward trend in overall support for the levy which based on the latest survey in April 2022 had fallen to 66% (target 73%). Notwithstanding this, overall support for the levy which by the latest survey in April 2023 recovered to pre-pandemic levels to 71% (target 73%).

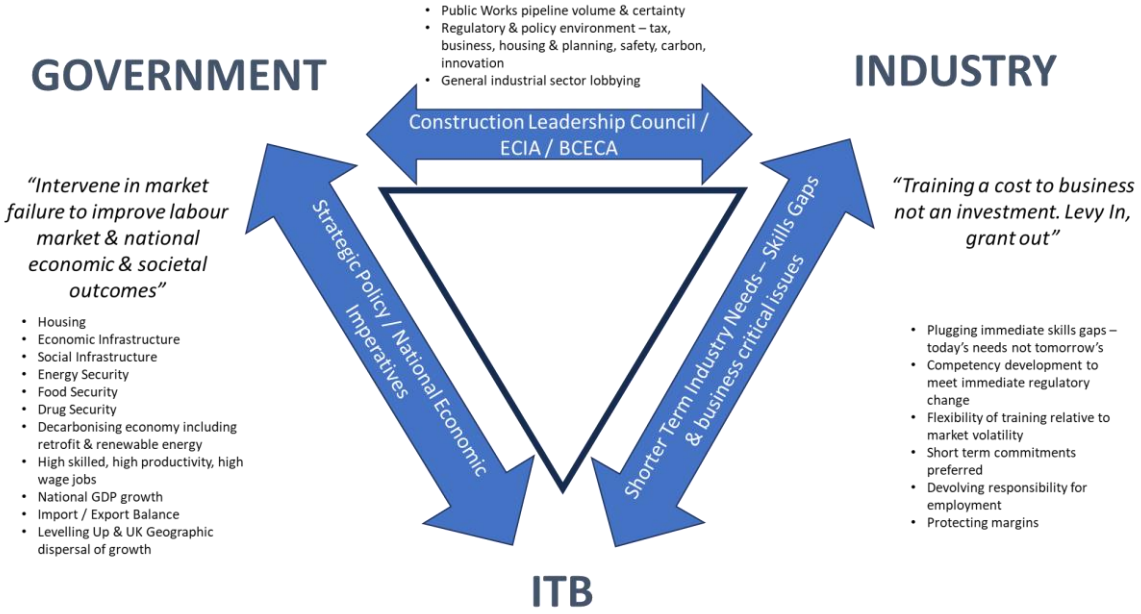
The issue of who ITBs should be fundamentally accountable to has also arisen during evidence gathering. There is a case for reviewing the basic approach to how ITB performance is measured and who it answers to beyond industry levy payers where

matters of wider public interest apply. This might call for much greater governmental influence and in turn ITB accountability to government for outcomes and vice versa.

This is a basic challenge to the concept that the levy is paid by industry and industry directs its distribution and that government should stay remote from this relationship. This review feels there needs to be more external tension as to how the funding is prioritised, especially in more strategic future programmes and how and where it is spent in line with much broader national objectives, looking further over the horizon from immediate employer defined priorities.

The complex relationship between the ITBs, government and industry which ultimately tripartite accountability needs to balance can be summarised as per figure 19 below:

Figure 19: Interrelationships of ITBs, government and industry



Fit for purpose accountability should be demanding that the ITBs have much broader impact. There appears, despite the levy grant system, to be parts of the industry not undertaking sufficient training and perhaps more importantly not accessing reskilling and upskilling.

It is likely that regulatory or client mandated enforcement of minimum training levels linked to a new standards led regime and culture is the only way that industry will be forced to engage at scale. The incentive led rationale for the levy grant system is not necessarily enough on its own to drive workforce wide improvement. This will in turn need a fit for purpose, scalable training provision using a programmatic approach to reaching a wider proportion of the workforce.

There is no real precedent for the nature of such a large-scale labour force intervention outside of war time mobilisation measures. A problem has been storing up for many years and lack of historic focus on shifting the dial of industry wide workforce capacity

and quality has been perpetuated by an ITB focus perhaps too narrowly applied towards supporting the training of new entrants. Whilst it is recognised that ECITB have set a minimum distribution of grant of 52% for existing workers, when taken across both sectors on a whole workforce basis, there is a question mark on whether workforce quality has been uplifted or been sufficiently supported by long term sustained additionality of training new starters.

It is ultimately the role of government to better challenge ITB priorities to safeguard public interest. Industry, in terms of individual employers, is unlikely to prioritise the more difficult and thorny issues of strategic level longer term industry wide interventions as opposed to the more near-term business specific priorities of training individual employees to do today's job in response to today's pipeline. There is however a need to ensure such external challenge ends up influencing employer views on their real future skills needs otherwise the basic employer led training model and the employability of learners breaks down.

5.4 Resetting priorities

The inability of ITB impact to date to offset growing workforce quantum and resiliency challenges goes to the heart of why a major reset is considered necessary to address the strategic challenges facing both engineering construction and construction.

In a combined industry of over 2.3 million workers (with over 1 million workers in scope of both ITBs), the total number of new entrant apprenticeship and formal qualification grant supported interventions which lead to long term employment are clearly not even matching attrition. This is reflecting itself in a declining total workforce. A progressively ageing workforce in both sectors and a reducing ability to rely on migrant worker supplementation, means there is now an urgent need to address how we get more from the standing workforce.

This requires a pivot from just concentrating on attracting new workers and supporting the traditional routes of training towards wider industry workforce development and more diverse entry models. Maximising and feeding the talent pipeline continues to be vitally important but, for reasons set out later, this is currently a very inefficient process which is potentially at risk of diminishing returns.

It is the conclusion of this review that an industry wide programme is now needed solely focused on improving three macro-outcomes, which are:

- improving industry's whole of workforce competency & the ongoing maintenance of its currency
- improving industry's project level productivity & quality assurance in conjunction with other parallel regulatory reforms
- improving industry's strategic level workforce retention and utilisation

This represents a deliberate shift from a focus on primarily funding and supporting training of new entrants and particularly apprenticeships to a much more balanced impact on the wider workforce with competency, productivity, and utilisation as the key measures of success. It is likely that to move towards this will require the industry to have a mechanism to record and police general worker competence so that it becomes a barrier to entry to operate on a construction site. This will need to be a far wider requirement than the construction industry is currently planning for in relation to the regulatory requirements covering fire and structural safety impact as mandated by the Building Safety Act (BSA) or even the wider competency requirements of the Building Regulations etc (Amendment) (England) Regulations 2023 (BRAE).

It is recognised that improving levels of competency will act as a further, and perhaps unwelcome filter on the available workforce capable of being deployed (see figure 20 below). There is a real risk that the pressure on the workforce could, at least in the short term, be exacerbated by any new minimum competency measures. The industry is clearly already nervous about this in relation to building safety.

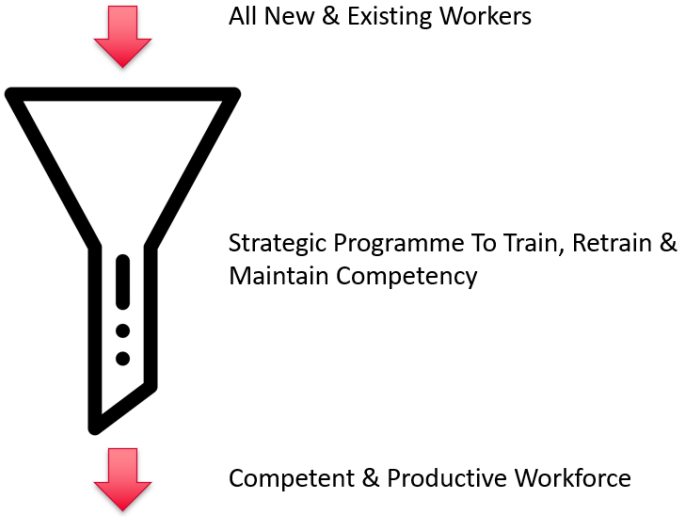
Some will argue that it is better to suffer a partially competent and less productive workforce of higher quantum rather than a minimum standards led one of less quantum. The resultant comparative equation in terms of impact on total industry quality assured output capacity in both scenarios can only be conjecture. This review feels though that the long term sustainability of the industry requires a fundamental shift in workforce make up and capability not just the short term protection of headcount.

The industry and CITB should have already been focused on this challenging conundrum and perhaps this has been viewed as being tomorrow's problem. The risks of forced industry contraction are visible including from the withdrawal at the end of 2024 of CSCS card Industry Accreditation status, which could lead to a large reduction in workers authorised to be on a construction site.

It is recognised how difficult whole of workforce training interventions will be in practice. The Government Office for Science[57] has identified that participation in formal learning reduces with age, so with an ageing workforce as construction has, the idea of getting time served workers and/or employers to willingly agree to formal upskilling based purely on incentives without compulsory requirements, is seen as remote.

[57] https://assets.publishing.service.gov.uk/media/5b51fbdae5274a3fd124c916/Foresight-future-of-skills-lifelong-learning_V8.pdf

Figure 18: The 'Competency Filter'



5.4.1 Impacting competency & productivity

As noted in Section 4 above, there is an implied assumption that training which improves general and specific competency drives improved productivity as an output as well as better assuring its quality. It could also be inferred that a productivity led focus on training is part of improving wider competency. Therefore, the two facets are viewed together here.

Addressing industry challenges

It is worth noting that a central principle of government policy is that economic productivity in the round is linked to a higher skilled workforce, measured by attainment level. In an industry such as construction with a high proportion of workers below level 3 attainment, there immediately is a question over whether the structural shape and characteristics of the industry are aligned to wider policy ambitions of a high skilled, high productivity, high wage workforce. This is less applicable in engineering construction which has an attainment profile more skewed to higher levels.

There are some key factors that suggest construction should be viewed on its own merits. These include:

- wages are often more linked to labour scarcity rather than productivity
- construction has low propensity to invest in fixed capital rather than more flexible labour
- in construction, the minority higher qualified technical and professional cohort responsible for design, planning, procurement, and management etc can have disproportionate impact in how they set up, plan and conduct the overall process of construction to drive the productivity of others, and this potentially polarises the

productivity debate between what needs to be done between higher and lower skills jobs
- step change technology led productivity improvements (i.e. AI) are likely to have more impact on professional and technical services rather than the large number of workers delivering physical construction activities where productivity improvement opportunities are likely to be more incremental and harder won; and
- competency and implied productivity potential of all workers from labourers to professionals cannot necessarily be measured purely by attainment levels within the current academic and vocational construction qualification landscape

The suggested new macro priorities set out above are what this review believes need to be at the heart of a new approach to workforce development which is strategic and far reaching. To date, the words ‘strategic’, ‘productivity’ and ‘competency’ have been subservient to the words ‘skills’ and ‘training’ which are perhaps more centrally associated with the ITBs and their function. The differentiation in terminology is more than semantics as a higher productivity and more competent industry is more likely to deliver industry improvement and resiliency than a notionally skilled and trained industry. Training for skills alone will not assure competency or productivity.

A pivot from skills to competencies

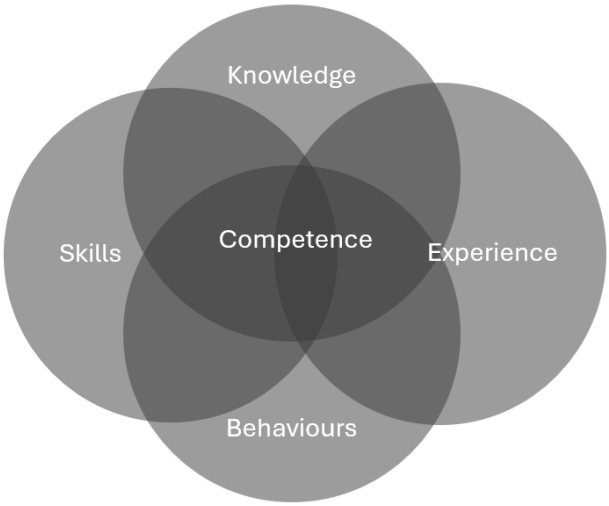
Currently, the skills system, or at least the industry and the provider sector perception of it perhaps does not sufficiently emphasise the required outputs of the workforce. It feels more about inputs and processes without linking to bottom line industry performance.

Qualifications, training standards and employer expectations are mostly informed by an historic attitude to what is the norm. ITB activity has therefore been heavily skewed by employer expectations, training provider capability and the wider institutional backdrop. This has shifted from a framework to a standards led approach but even now it seems that some industry employers are struggling to see the link to proven workforce outcomes.

The findings of this review conclude that the work happening to help industry engage better and maximise the outcomes achieved from the skills system should be continued and enhanced.

Competency needs to be addressed holistically if we are to improve both industry and worker level capacity and capability. The component parts of competency can be defined as set out in Figure 21 below.

Figure 19: The component parts of competency



DfE's transition in recent years from apprenticeship frameworks to standards and the End Point Assessment requirement at apprenticeship completion has been established to test occupational competence as an end outcome. The theory is sound, but the question remains of how much newly qualified apprentices have been truly assimilating skills, knowledge, experience, and appropriate behaviour. This is dependent on the qualifications of assessors to arbitrate on that in each individual discipline and is ultimately being assessed against standards that industry deems to be a competency whether it actually is or not when viewed on a holistic future workforce basis.

Both ITBs are starting to embrace competency; in construction this has mostly been driven by pockets of statutory regulation or end client led compliance. In engineering construction, it has been driven by contractors and clients recognising the benefits of enhancing and standardising competency requirements to improve safety and workforce transferability. ECITB in particular has led work on competency for a number of years, most notably through its Connected Competence programme which is now recognised and used by asset owners and contractors across offshore oil and gas. CITB is also now recognising this in response to regulator driven priorities linked to BSA requirements and to a lesser extent, BRAE requirements.

Unregulated competency initiatives

In construction, and independent of regulation, some trades have started to address the concept of certified workers and competency recognition. Recent CITB funding for the NHBC/NFRC roofing masterclasses linked to the RoofCERT accreditation[58] is an

[58] https://roofcert.co.uk/

example where a trade specific competency / non-apprenticeship aligned qualification is being used.

Similarly, Finishes & Interiors Sector (FIS) has introduced its own FIS Competency Passport[59] .

HBF/NHBC organised brickwork masterclasses developed with the Association of Brickwork Contractors (ABC)[60] is another example of competency improvement outside of a regulatory environment.

FIS Competency Passport

FIS has partnered with MyProPass to provide a tool for FIS members to issue, access and manage competency data for their workforce and provide individuals with a Competency Passport to demonstrate their training and achievement history.

It means companies will need to have a clear Competency Plan and be required to demonstrate that their workforce, at every level, is competent to complete the tasks their work involves, from Labourer to Managing Director. To help achieve this, individuals will need to keep records of their achievements, training and experience.

MyProPass helps individuals manage achievement in any form – education, training, qualification and experience – by storing records in one secure place to create a Competency Passport. Employers can then access individuals' records, subject to permission, to validate their competence.

NHBC Brickwork Masterclasses

Brickwork Masterclasses, a Home Builders Federation initiative delivered by NHBC in partnership with the Association of Brickwork Contractors (ABC) and funded by CITB, are designed to deliver practical skills and knowledge on the most common brickwork issues found by inspection teams.

The 90-minute sessions are delivered by highly skilled and experienced NHBC Building Inspectors. They provide practical guidance on improving quality and standards and how to promote awareness of good practice on site.

[59] https://www.thefis.org/skills-hub/competency-passport/

[60] https://www.nhbc.co.uk/builders/products-and-services/training/courses/brickwork-masterclass

There is a need to quickly scale up these sorts of activities by several orders of magnitude, supported by a powerful ITB strategy. This will in turn require enablement by the wider skills system aligning occupational standards, a spectrum of qualifications and a refreshed and diverse range of provision to map onto these new imperatives.

Regulated competency

Turning to building safety competence in construction, as identified by the Construction Industry Council's Competence Steering Group[61], the timelines to launch a fit for purpose competency regime are very prolonged. This review is concerned that progress to date and future pace is insufficient to avoid the industry hitting not just regulatory compliance issues but further indirect consequences of poor competence.

The Installer Working Group 2, part of the previous Competency Steering Group (CSG) has, despite a huge collaborative effort, had some difficulty arriving at agreement on competency frameworks for each trade or specialism. It is also clear that CITB's role in that process has not necessarily been one of leadership or enablement but more a participant, reacting to specific requests from other stakeholders on an ad-hoc basis. More recently, concern has been raised regarding duplication of effort in this area from CITB.

Doing the right things

There is a key challenge as to how to move the dial on both new entrant and existing workforce productivity through a range of practical and achievable training measures which incrementally improve collective and individual worker ability to improve site activity efficiency, reduce re-work and waste.

It is recognised that there are many externalities affecting productivity which no amount of training or competence building can address. There are many however which are fundamentally linked to skills, knowledge, experience, and behaviour of the workforce.

This is reinforced by a 2016 Singapore Building and Construction Authority (BCA) study into construction productivity and its measurement[62]. It identified the top 6 causes of worker, team, and organisational poor productivity as:

- poor skills of workers
- inadequate pre-project planning and pre-work planning
- inappropriate working methods
- poor motivation of workers

[61] Competence Steering Group (CSG) | Construction Industry Council (cic.org.uk)

[62] Construction Productivity in Singapore - Copy 1.pdf (scal.com.sg)

- communication difficulties between workers and supervisors, and among workers
- reworks to rectify defects

It went on to identify the top five factors outside individual worker or their companies' control which cause low productivity as:

- delays in providing information to contractors
- delays caused by compliance with regulations
- changes in design
- priority given to other project parameters such as cost, quality, and safety; and
- complexity of the project

The second group of reasons again all underline the importance to construction workers of the roles of the client, consultants, and regulatory authorities in influencing industry productivity.

Supporting competency driven productivity improvement

In the context of competency driven productivity, this review has found apparent uncertainty or perhaps implied resistance, certainly from CITB, to fully embracing specialist training for productivity as an explicit core theme. As a relatively novel concept in traditional training terms, without many benchmarks and precedents for outcomes, it appears this is a 'chicken and egg' impasse and incremental but large-scale interventions into worker productivity are perhaps viewed with suspicion.

Some CITB proposals have apparently struggled to deliver business case sign off for funding under their current funding rules. It is indeed recognised that the language and approach required for construction must be different from manufacturing. Even the term 'lean' is viewed cautiously in some quarters. Highly practical and evidence-based strategies for training and learning are required in this niche space that must drive self-perpetuating industry followship and mass adoption. This is likely to also rely heavily on industry leaders and large businesses showing the way and supporting the wider supply chain.

A further illustration of the point regarding apparent indecision or lack of conviction on the required approach is CITB's recent Industry Impact Fund initiative. This offers up to £500,000 for innovative proposals from industry that can improve the workforce through new approaches (which would include productivity, quality, digital and manufacturing themes). A call for proposals from industry suggests that CITB's leadership and strategy for more innovative and higher impact initiatives is missing in construction and is perhaps overly consultative rather than proactive.

It is this review's belief that the ITBs should be owning, driving and enabling change, not just piecemeal funding an array of different initiatives offered by multiple industry stakeholders that seems like a slow and fragmented attempt to pilot change. It should of course consult with employers and other key stakeholders but ultimately it needs to have

the intellectual firepower and wherewithal to establish some refreshed core principles that can create strategic level impact on the in scope workforce

In pursuit of this aim, there is an urgent priority to identify and influence the ‘low hanging fruit’ of small, simple but accretive things that can change the way the average traditionally trained and employed site worker delivers their output and can form part of a national programme of reskilling/upskilling.

This includes the highly influential role of direct and indirect line management on site who are organising and deploying labour and who are responsible for unincumbered access to the workface, materials, plant and tools availability, welfare support, quality assurance and the avoidance of damage by others. There needs to be a roll out of construction’s version of the manufacturing sector’s lean approach to tasks, process optimisation and incentivisation of greater personal responsibility, including amongst self-employed workers. It will require a mass adoptable approach which can in turn create followship and be incentivised.

There has been some limited piloting of supported specialist programmes (i.e., CITB support for Get It Right Initiative and BBI lean consultants via Supply Chain School) but it still seems at the margins of CITB thinking in its current limited form and quantum of funding support. This approach needs driving into national competency standards and ultimately, a mandated upskilling programme.

In conclusion, innovative, deliverable and wide reaching programmes are required to shift the productivity dial even by just an incremental amount. This an area where any future ITB body should be influencing industry and government priorities, and creating implementation plans if it was truly fulfilling its brief.

Although CLC has identified industry productivity as part of its strategic themes, achieved both through improving the workforce and use of modern methods, the risk is that there will be no route to downstream workforce impact without related progress on standards, pathways, provision and policing. This in turn requires a funded engine room to lead and drive activity and outcomes in all these areas.

It is unquestionable that the ways in which industry continues to design and procure bespoke solutions that then pass through an indeterminate political rather rules-based planning system, which in turn fail to embrace buildability optimisation or more collaborative and integrated engagement, are all major cumulative blockers to productivity improvement. This all happens before a project even gets to site and are part of the wider industry’s wider reskilling challenge, especially amongst professionals and senior personnel. This extends to the competencies of clients to the industry and their advisors. These matters are beyond the terms of reference of this review but are highly relevant.

There currently continue to be too few examples of projects being set up to enable productivity as opposed to driving to a lowest cost position. Conversely, there are also too few examples of the supply chain attacking waste reduction within its control to reduce its price point and expand its margin. Baked in inefficiency or input resource inflation driving upward cost price pressure usually means a default of putting up prices to clients or suffering a margin squeeze. It is expected this situation could deteriorate further in the current period as client viability pressures increase and adversarial contracting returns once again to the industry in synchronisation with an economic downturn. These issues are clearly largely outside of ITB scope and influence but are relevant considerations for strategy formulation and joined up thinking with wider industry activity.

The industry's sub-contract led fragmentation exacerbates all of the above by introducing multiple transactional interfaces which are largely non-value add risk and administration price layering and sources of conflict, payment inefficiency and even malpractice due to the pressure to exploit trade credit in supply chain business models. It is noted that there are varying initiatives attempting to address all these issues, but this review is of the opinion that there will be no major shift in a new direction without more muscular intervention including more progressive and firm client mandates (including from government and the wider public sector) which currently feels like a distant prospect.

The size of the prize

A fundamental productivity shift is the subject of a recent CLC paper, 'Creating A Productive Environment for UK Construction' which sets out the potential of a highly ambitious 25% improvement in industry productivity[63]. This review is cautious as to the reality of achieving anywhere near that level of improvement and there is always a risk that such headlines sometimes undermine credibility. It is recognised however that the industry needs to think about targets to drive change.

It is worth reflecting on the fact that if only 50% of the national construction and engineering construction workforce improved its productivity by just 1%, this is equivalent to the bottom line output of circa 12,000 operatives in a year – or equivalent to circa 36% of the total number of new apprenticeships starts in construction 2022/23. This calculus shows just how sensitive the industry is to relative output shifts across such a large standing workforce and how capacity can be vastly improved through subtle and incremental measures applied at scale.

[63] Creating a Productive environment for UK Construction – Construction Leadership Council

5.4.2 Impacting utilisation and retention

Mitigating employment volatility

In addition to training the workforce there is an equal if not greater challenge which is retaining and utilising the existing workforce.

This situation is no better illustrated than the following two quotes, the first from March 2023 in relation to the bricklaying trade:

> "Some bricklayers now earning OVER £125,000 due to shortages as industry bosses fear government target of 300,000 new homes a year will be missed unless more are trained. Some senior bricklayers are earning £2,500 a week due to brickie shortages" [64].

A further subtlety is apparent in this second quote just 8 months later as the construction downturn takes hold in the labour market:

> "Average rates have increased in a slowing market because the most productive and highly skilled people are kept on while the younger improvers are let go."
>
> "We saw the same thing happen following the financial crisis of 2008, it's like history repeating itself. If contractors let people go and materials suppliers cut back on production, it will take a long time for the industry to recover." [65]

This latter quote shows how polarised job security and wage inflation can become in a more discerning, declining market based on skills and experience. It also demonstrates the challenge of getting trainees and learners competent, versatile, and productive quickly before they become victims of cyclical industry contraction.

There is a basic weakness in the ability of the industry to maintain constant levels of employment. The project-based nature of capex commitment is at the heart of the market failure that the ITBs are set up to mitigate. Although the UK has experienced high levels of employment generally in recent years and we have a workforce gap in the long term, this can still mask short to medium periods of under employment and unemployment in downturns. This is exacerbated by the high level of self-employment that prevails in both

[64] Some bricklayers now earning OVER £125,000 due to shortages | Daily Mail Online
[65] Housing slump hits brickies | Construction Enquirer News

sectors, especially in construction. The safety net for more volatile earnings are reduced and there may be a higher propensity to leave the sector, sometimes permanently.

Supply & demand matching

This review has found that there is a need for a much more strategic work brokerage function, especially for self-employed workers, or people seeking new or different employment. This should be enabling skills and competency supply to be better matched to demand over time and geography, including more potential realised for transferable skills. This is crucial to avoid the hollowing out of the workforce in economic downturns which has been seen over the last 20 years.

This longer-term erosion of the structural skills base in both industries has already been illustrated in section 4 as economic cycles have led to a reducing peak employment position which is now being further unwound by reduced economic activity and confidence. Due to the highly transient workforce with more limited employment protections, there is a need to avoid people leaving the industry in periods of under or unemployment. A centrally coordinated brokerage regime and safety net which better optimises utilisation and enables training to happen in less active periods should be the objective of a more resilient industry.

Sharing employment risk

The CITB's Shared Apprenticeship scheme, set up to improve the sharing of learner employment risk, seems to have had only mixed success. The concept of employers sharing the burden of employing trainees and apprentices seems logical in an often-turbulent market, if it is properly coordinated, ensures proper working protections and continuity for the employees. A better understanding of what lies behind this lack of success should be sought to help shape future utilisation and retention measures.

A multi-employer approach to learner workplace contracts should facilitate a more varied and diverse modular approach to attaining competency beyond just a single trade. It is recognised that the construction supply chain model is very much structured around trade specialisations and this in many ways perpetuates the perhaps misplaced demand for trade workers rather than a mix of artisan craftspeople and more generalist multi-skilled technicians who can be productive and competent when assessed against a range of occupational standards.

CITB Shared Apprenticeship Scheme

This scheme has been set up to help construction employers who want to support the development of skills while working on regional contracts but are not able to offer a full-term apprenticeship, and who wish to support training the future workforce. Eight schemes are being developed across Great Britain, which will see 500 extra apprentices joining the UK's construction industry workforce every year.

The Shared Apprenticeship Scheme allows employers to take on an apprentice, for as short a duration as three months, with no commitment to the apprentice at the end. Employers can support and benefit from apprentices without any long-term risk or long-term cost to their business.

Once the apprentice has finished working with an employer, they are found another placement, and upon framework completion, they will be assisted in sourcing permanent employment within their chosen trade. An apprentice who completes the full three-year apprenticeship will be awarded a National Vocational Qualification Level 3 in their chosen trade. Currently, around 90% of apprentices who complete the three years have secured full time employment in their chosen trade.

Strategic planning

The overall workforce attrition seen since the pandemic is particularly worrying and needs to be viewed against a backdrop of potential multiple concurrent causes including the pandemic, the Ukraine conflict, and a more general economic downturn. There has been a broader decline in the size of the economically active, properly trained and internationally mobile overseas construction labour force who want to work in UK.

This review therefore feels in light of all of the above, any future ITB body should have strategic workforce planning capability at the centre of both its strategy and its implementation programmes. The aim of this should be to link fit for purpose, data driven labour market forecasting with the capability to better align workforce supply and demand, improving net utilisation. It should also ensure future training needs are focused on identified key projected shortfalls in relation to both total workforce profile and size relative to the existing baseline position.

This forecasting should reflect important market, economic and regulatory trends, impact of major project delivery and needs to be able to show at a national, regional, and preferably a local level the best assessment of short to mid-term demand for built assets and a resultant modelled occupational demand. In turn this needs to be capable of modelling the quantum of workforce by specialism, by geography and over time. In engineering construction, it needs to also reflect as far as possible the peaks and troughs related to plant shutdowns and turnarounds.

There is a need to focus on grading levels of certainty of future projects. One of the perceived failings of current skills forecasting is true ability to update for the impact of economic cycles, private investment fluctuations, housing market activity, building standard and performance regulatory changes, public spending (including policy led programmes related to decarbonisation etc), regulated infrastructure assets spending programmes and major project commitment decision making and timescales. Past versions of the National Infrastructure & Construction Pipeline prove the point that such static point in time publications are of no real use to the industry and with the benefit of hindsight would have led to the wrong decisions being made on workforce size and shape if they were taken at face value.

There is a question mark over any current demand forecasting tool which purely uses planning applications as a datapoint. These might serve as a longer-term potential project awareness signal but without being overlaid by a better analysis of the likely consenting timetable, the end market demand drivers informed by macro-economic conditions and most importantly the funding behind the project, this data is not meaningful. The combination of robust, open-source datasets with intelligent data analytics and an algorithmic engine could create a game changing asset to help build resiliency through maximising what we already have in the workforce as well as ensuring additional resource is aligned to future demand.

Such a workforce planning capability will require a dynamic real time digital platform. It should be open sourced to industry to build transparency in future workloads and in turn enable more confidence in employer investment in the workforce. A future ITB model can support workforce brokerage solutions for both employed and self-employed workers, matching industry and sector wide workforce demand and supply at a national and regional level beyond the bounds of individual employers' visibility.

Step change from the present

In construction, many will point to CITB's Construction Skills Network as being this outward facing tool but there is a question mark as to whether this exercise, albeit well received by both industry and government, is accurate and dynamic enough and is truly being used in anger as a strategic tool.

It has been noted by this review that ECITB has just launched their Labour Forecasting Tool which is seen as a useful and positive addition to this debate[66]. Although it has some useful datapoints and addresses some of the concerns of the review in strategic workforce demand planning, it still feels as though it is not as dynamic and

[66] Labour Forecasting Tool Overview - ECITB

comprehensive as it could be, including enabling the link to improved employment brokerage.

The ECITB's tool draws on upcoming project information and assumes projects will proceed in line with publicly stated timelines. As a result, it can best be described as a 'best case' scenario model rather than a risked forecast. ECITB acknowledge this as a limitation in their methodology. In the absence of real time project data, which is difficult to come by, the limitations of the tool are understandable, although we note ECITB's aspirations to further refine the model with more granular project data as it becomes available.

It is recognised that the situation in the engineering construction industry is different to the hugely fragmented and diverse project pipeline which construction delivers. The nature of the sector, its end clients and its employers tend, at least for site-based works, to aggregate into concentrations of employment and hence workforce demand in geographic clusters.

This in many ways helps ECITB to shape a strategy responding to these concentrations and it has done good work to evolve its thinking and activity in this regard which the review has noted. It's recent announcement of a national programme of Regional Skills Hubs with a more strategic concentration of funding to support provision against key sub-sectors of the engineering industry illustrates this well[67]. This approach also becomes relevant to CITB in relation to construction workforce needs on major fixed location projects such as HS2, Hinkley Point C and Sizewell C.

Some of the evidence heard in relation to Hinkley Point C specifically, has reinforced the wider point made in this review about a need for a much more integrated, non-siloed approach than currently seen with the twin ITB model. This comes to the fore on major public projects, many of which fall in the National Infrastructure & Construction Pipeline. They often require both construction and engineering construction input and have elements of skills transferability which perhaps have been missed in the past. There seems to be a latent opportunity to get the existing combined construction and engineering workforce working smarter together rather than falsely assuming a need to attract and train more people in partial duplication.

This all points to the potential for a single strategic workforce planning platform spanning both current ITB scopes. This can be further segregated into detailed workforce needs within individual sub-sectors across building, civil engineering, housebuilding and engineering construction.

[67] ECITB announces £1M investment in Regional Skills Hubs - ECITB

Building off success

In support of the ITBs, it is recognised that some good work has been done in the area of employee retention. Examples include the ECITB 'Train to Retain' scheme and the STEM returners pilot programme. Similarly, the CLC/CITB Construction Talent Retention Scheme was established to avoid pandemic hollowing out. The conclusion though, especially in the current economic headwinds being faced by the sector, is that more needs to be done and it needs to be more strategic, long term and impactful not something forced as a 'one off' out of an abnormal event like COVID-19.

ECITB Train to Retain

The ECITB set up the Train to Retain scheme to support early-careers personnel (apprentices, trainees, and graduates) who were at risk of redundancy during the Covid-19 pandemic lockdown periods. The scheme provided grants for professional development activities (up to a maximum of 120 days learning per person) to support the continuation of learning and was carried out when individuals were not working on their normal 'billable' activities. It also supported the further training of recently qualified apprentices (within 6 months of completing) who benefitted from additional development. ECITB funded learners' development activities according to agreed training and development plans set with their employer.

The scheme was launched in July 2020 and ran until the end of 2021. During this time, it supported training and development activities for 503 graduates, apprentices, and trainees, with an investment of nearly £4.6 million.

An independent review of Train to Retain, by the Centre for Economics and Business Research, concluded that 53 learners were directly spared redundancy and 98% of potential further redundancies were avoided as a result of Train to Retain funding. The Centre for Economics and Business Research also noted that without intervention from the ECITB, the industry would have faced output losses of £4.5m on graduates, £1.5m on apprentices and 467k on trainees, suggesting a return of more that £1.5m on the Train to Retain investment.

A survey of participating employers found a 95% satisfaction rating for the programme, with the majority of learners saying Train to Retain augmented their current and future career prospects. Among the different aspects of the scheme, employers were most satisfied with the funding made available by the ECITB, as well as the guidance they received.

ECITB Scholarships

The ECITB's scholarships are a flagship new entrant programme designed to equip the next generation of engineers with the skills for net zero and beyond. They provide a sustainable pipeline of new talent for industry by providing a grounding in the industrial knowledge and skills that are in demand.

The 1–2-year part-time programme aims to accelerate learners into apprenticeships or other forms of employment by providing them with training against some of the necessary components of an apprenticeship, off the job in an approved centre.

Learners receive a weekly learner allowance, and on successful completion of the programme, they have industry-standard qualifications and relevant site passports as well as invaluable on-site industry experience coupled with a clear understanding of what is expected of them when they enter industry – all of which enhances their employment prospects.

For employers, this presents an opportunity to engage with the programme to identify talent, get to know the learners and recruit a young person who has had the requisite training to be either fast-tracked into an apprenticeship or recruited as a direct site hire.

519 learners have enrolled in the scholarships programme since its inception in 2020, and a further 100 are due to join in September 2024.

5.4.3 Attraction & pipeline development

Current position

The three proposed identified priorities for a reset ITB model set out in section 5.4 above do not include active participation in the other key industry challenge of maximising the industry's attractiveness to the young school age talent pool, increasing its diversity, and improving its image with the public. This is deliberate and represents a key conclusion of this review.

In line with a wider war for talent, the engineering construction and construction industries are clearly struggling to attract new entrants in sufficient quantum to offset the impact of an ageing workforce and other sources of leakage described in this review. The need for an overhauled approach to messaging what the industries do and offer as a fulfilling and exciting career opportunity is critical. Current initiatives are numerous and varied in their approach and effectiveness and are at risk of not being strategically coordinated for maximum consistency and ultimately impact.

Feedback to this review on CITB's Go Construct, Go Construct STEM ambassadors, and Talentview platforms and initiatives and on ECITB's general messaging and outreach activity, although broadly supportive of the intent of both ITBs, was ultimately doubting the true impact of any of this extensive effort and in some cases, financial expenditure, on the end additionality of numbers of new entrants.

There is a sense that most of the current school outreach initiatives attempting to influence career choices at an earlier age are just not working sufficiently. A combination of lack of progressive communication channels, the wrong content and messaging being used and an inability to build sufficient empathy with the target audience were all mentioned in evidence.

There were contrasting views heard by the review as to whether influence is best driven by very real and identifiable 'war stories' of people who have made a career through very traditional pathways (example given of a successful building company owner who started as a labourer) or whether a new future looking image and career opportunity should be set out via role models who have progressed via a more deliberate, ambitious and perhaps future skills led pathway. Both approaches probably have a place, but the concern is that there is no real coherent approach to driving attraction and there is little current evidence of significant additionality and/or improved diversity of talent pipeline.

Recalibrating expectations

The challenge of attraction is crucial to both industries' longer-term sustainability but there is a danger that time and effort is currently being expended by both ITBs, particularly by CITB, for no meaningful gain beyond what would have happened anyway through personal choice, influence by friends, family, or personal network role models. This is also the need to accept that a large proportion of the annual new resource pool enter 'by default' or an otherwise pre-determined route. This is a long-term feature of the industry's annual new joiner intake and makes up a significant part of its entrant flow relative to the smaller proportion of entrants who have been inspired to join the industry following a school ambassador visit or other industry engagement initiative.

It is important to be ambitious but also realistic about how construction is going to truly step change its ability to better compete in the war for the undecided future talent pool. As part of this there is a need to be cautious about the often spoken about potential to leverage young people's philosophical alignment to jobs which are linked to addressing climate change or improving society. This was raised in evidence as a potential red herring, especially when it comes to lower entry level workers. This also seems to be borne out by recent research looking at the drivers for selecting green jobs and questions

the relative importance of environmental considerations versus more practical issues like job security, working conditions and pay[68].

It is important that the undeniably positive narrative that can be built about construction and engineering construction's role in decarbonising the economy is not over stressed at the expense of addressing and emphasising other career selection criteria which are potentially much more impactful in early decision making for some parts of the industry's intake.

Improving competency to improve attraction

There is no suggestion that we should not continue to work hard and aspire to shifting young people's perceptions of the industry (and importantly their influencers such as teachers and career advisors who continue to appear to be having an often misplaced negative influence on choice of construction as a career). The reality is that to move to a wholly different external view of the industry, especially in more mundane parts of building construction, lots has to happen to overcome the constant negative PR that has been left in the wake of the Grenfell Tower tragedy and the litany of mainstream media exposes of 'cowboy builders' and too many instances of poor quality work. This therefore becomes a 'Catch-22' challenge of improving competency and end quality to improve attraction!

A new direction

There was a level of consistency in feedback received, that industry needs to better own this overall attraction challenge as opposed to the ITBs whilst at the same time recognising external support, coordination and indeed funding will still be required to deliver this differently.

The work done to date, especially the Go Construct platform in construction represents a resource and platform for a new evolution of school and other outreach activity. The issue perhaps is how this work is taken forward in a different way, with a revised balance between coordinated industry and employer ownership and ITB financial support.

There is also a direct link between how an outward facing careers advice website or similar needs to evolve to reflect a more strategically coordinated series of clustered pathways discussed elsewhere in this review rather than perpetuating the hugely fragmented occupational spectrum currently presented.

[68] https://www-edie-net.cdn.ampproject.org/c/s/www.edie.net/more-education-needed-as-interest-in-green-jobs-worryingly-low/?amp=true

Concern was rightly raised in evidence about the need for this function to still have a central home in terms of access to curated collateral and supporting tools and to ensure consistency of message from large to small businesses embarking on outreach or attraction activity.

A relevant example might be emerging in the nuclear sector where the Nuclear Skills Taskforce is currently building a toolkit which ultimately will be held in a central repository to be able to be accessed by all. It was noted that the outward facing image of a careers platform and the ambassadorial individuals associated with it are highly relevant to the effectiveness of a compelling narrative for the next generation.

Section 4 of this review has already highlighted the lack of diversity and inclusion in the current industry and in turn the various efforts being made to tackle this. Efforts must continue to improve this position but perhaps require a strategic workforce plan to guide activity in terms of specific worker skill gaps and their locations.

The different target audiences being addressed whether they be gender or ethnic minorities, ex-offenders, military service leavers and veterans or educationally, socially and economically deprived or disadvantaged communities, all fundamentally need to have communicated to them a consistent vision of the industry going forward with their potential role outlined. It feels that too much still happens by chance or in small pockets relative to the size of industry need and potential to better mobilise these latent talent pools.

References are often made to how the armed services in this country have mobilised national media campaigns to good effect to land messages into the younger generation. The industry should be under no illusion though that most other sectors, including the armed forces, are now struggling to fill vacancies as much as construction is. Simply sending a strong and aspirational campaign message as part of a national TV campaign for instance is not enough now. It is not just about the communication media channel used but the ability to build early empathy and alignment with current societal trends and personal expectations which all seem to be the determinants of success.

A good, suggested benchmark for powerful communication is the B1M channel[69]. The content curation is very much about showcasing, with high visual impact, the very best and most impressive things our industry does, focusing on sheer scale, use of technology and within this wider context, the level of societal and environmental impact. These are all key drivers for the next generation and serves as a useful reference point.

[69] https://www.theb1m.com/

International context

In conclusion, it is worth putting the UK's attraction problems in context of international benchmarks. The once internationally lauded German Ausbildung dual Vocational Educational Training system is under similar strain in terms of lack of new entrants. Despite much better historic German cultural recognition of non-academic, more vocational pathways as having societal equivalence to university learning, Germany has been recently struggling as much as the UK to attract workers into construction[70]. Germany also shares our demographic profile, so the wider context is identical in terms of structural workforce erosion through ageing. This reaffirms that even wholesale educational reform towards vocational/academic qualification equivalence, as the UK is striving towards, is not enough to offset the societal shifts in young peoples' career ambitions and willingness to do certain jobs. Germany has referenced that as of 2023 there is a shortage of 250,000 skilled craftspeople and 60,000 heat pump installers – which all sounds very familiar.[71]

5.5 Realising common strategic goals together

Need for shared endeavour

In response to the strategic refocus already set out above, there is a core question of how an ITB model fit for the future should be configured operationally.

Although there is significant difference between the engineering construction and construction industries in terms of their shape, size, end client bodies and their specific craft, technical and professional skill composition, there are common fundamental challenges which both industries face related to workforce gaps, skills gaps and declining workforce resiliency.

The review has found that there has been a low level of collaboration and integration between the two ITBs and a lack of shared endeavour. This has historically been reinforced by the fact that they are clearly mandated to operate as standalone ITBs with no explicit requirement for joint working or collaboration.

In a positive sign of progress however, it has been noted that the two current CEOs of each ITB have recently met and discussed closer working. It is also noted, perhaps purely symbolically at this stage, that engineering construction trainees recently made use of the Constructionarium facility at Bircham Newton. Hopefully this can set a precedent for wider National Construction College integration and for joint construction

[70] Europe's apprentice powerhouse loses its way – DW – 09/01/2022

[71] Workers for Future: Germany's dual vocational training under stress – EURACTIV.com

training to potentially be augmented into ECITB's new Regional Skills Hub programme where geographic demand is warranted, and current provision can be improved.

Strategic alignment

An ITB's strategic plan and resultant business plans are the most important management tools for guiding activity and priorities. Some feedback has suggested, in relation to CITB, that strategy setting and implementation is undermined by engagement and communication issues, which leads to large representative parts of the industry feeling divorced from the end strategy, reducing in turn its level of observed support.

The individual business plans and strategies for each ITB, although with areas of overlap, are ultimately different. In CITB's case there seems to have been volatility in modifying strategic aims and resetting business plans in recent years and there is still apparent misalignment to what the CLC People and Skills workstream is signalling as its priorities.

The theme of constant change extends to the current day where it is noted CITB has already developed a draft 2024 - 2028 strategy while the current strategy is still due to run to 2025. Although the impact of the pandemic is recognised, this can't be an excuse for constant change and the risk of lack of momentum. The key needs of the industry have not changed and have only worsened over the last 5 years. There is a related lack of fixity in setting clear targets for high priority outcomes and sticking to them.

The latest emerging CITB 2024 – 2028 strategy cites three priorities of:

- pipeline
- pathways
- training provision

CLC People & Skills Plan Update priorities are:

- culture
- routes into industry
- competence
- future skills[72]

The ECITB current strategy has three priorities of:

- Foundations
- Growing a skilled workforce

[72] https://www.constructionleadershipcouncil.co.uk/wp-content/uploads/2023/04/CLC-Skills-Plan-2023-24-FINAL.pdf

- Supporting an industry in transition[73]

In reality there is significant overlap between all of the themes above. In relation to the three strategic priorities which this review is suggesting, there is clearly scope for these ten headings to be consolidated into a unified top level thematic strategy that a future ITB model (with CLC aligned for construction) should be pursuing.

Ultimately this review has not found any strong reason why a combined approach spanning both the engineering construction and construction sectors cannot be adopted that harnesses synergies and efficiencies of delivery with more focused and aligned leadership and shared learning on common themes.

Similarly, the joint strategic workforce planning tool referenced in section 5.4.2 above would be an easy win. In addition, the obvious synergies highlighted in relation to major infrastructure projects such as Sizewell C should be seen as 'low hanging fruit' for immediate collaboration.

Sharing best practice in competency framework & standards development is also seen as a potential priority as would be coordinating as a combined entity with the likes of IfATE and Ofqual.

Aligned but specialised

One of the issues raised in evidence has been a strong desire to see different specialist parts of industry retain their points of difference in any future ITB landscape. This suggests the establishment of a series of sub-sector 'verticals' where specialist teams who understand market specific dynamics, the employers, the supply chain, the providers and the standards regime can co-exist within a new combined body. This might also act as a mirror for how competency and pathway frameworks start to be better organised as part of a coordinated bigger picture.

This segmentation would ideally reflect the differences between:

- on and offshore engineering
- civil engineering
- housebuilding
- general building construction

The last segment above, building construction, might in turn be further sub-divided into the 'super sector' type clusters of trades which CLC are currently organising competency

[73] https://www.ecitb.org.uk/wp-content/uploads/2023/03/Business-Plan-2023-25-Final.pdf

framework activity into. Clearly this would need to respect where current ITB scope ends and wider out of scope industry segments such as M&E services begin.

Working smarter

In terms of the operational efficiency of the standalone ITBs, the information provided indicates that the organisations' costs look high and there are opportunities for savings in both delivery costs and in operational overheads. As set out in Section 6 below though, there is sufficient information to infer that of the c.800 people employed across both ITBs that there are areas of 'heavy' resourcing, especially in CITB, which suggests rationalisation is indeed possible and should be pursued to drive better value for levy payers.

Inextricably linked

Although the ECITB's evidenced level of industry support is more positive than CITB's, the reality is that it is hard to see a sustainable situation where ECITB continues to exist in isolation for such a relatively small workforce in the event of any possible decision to dissolve CITB. Therefore, the differential level of feedback and alignment seen in this review has not been seen as an opportunity to consider whether one ITB continues, and the other does not. There is a sense, rightly or wrongly, that their futures are inextricably linked and hence the direction of thinking has been to recognise that improvement is needed to varying degrees across the two current ITBs. This review believes that needs to be achieved going forward as a single, more powerful, impactful and efficient body, focused solely on workforce capacity, capability and resiliency, and spanning both engineering construction and construction.

Achieving deliverable convergence

This review believes that the current ITBs need to move rapidly towards becoming a single entity, initially by strategic alignment and gradually through operational and organisational reform whilst respecting the fact that there are two separate levies in existence. To avoid any practical blockers to change, it is suggested that there is no change to the split levy system, at least in the short term. This would enable ongoing ring fencing of employer levy receipts and associated separation of grant and other funding support back out into the respective sectors. Evidence suggests there is very little if any crossover between major employers paying both levies. It is for the ITBs and for government to work out the best mechanism for longer term evolution of the levy aligned to the future organisational status of the ITBs as they move towards becoming a single body.

It is important that a new integrated body obtains much improved access to workforce development experts and professionals potentially from out of industry, to liaise, in full cooperation and coordination with IfATE and Ofqual, on how new competency-based training should be defined and implemented at scale. This will likely challenge some

existing paradigms held by trade and professional bodies who have a particular view on their training standards and what the term competency means in their specialty.

The conclusions reached here on operational model and the full implications of such a significant change are not lost on this review. The urgent need for a broader reset however means that putting off difficult decisions for a future review are not an option. The challenges facing the industry need fixing now not in a decade's time. There is a need to face into the tough and complex process of major structural changes to the current ITB model and its legislative mandate whilst ensuring its successor can quickly build industry and government support and rapidly evidence greater strategic impact on addressing workforce improvement.

Running a parallel process of current activity alongside new activity in an interim state will mean there will unfortunately be a period of sub-optimal and perhaps even dysfunctional performance. This needs to be mitigated but is in reality unavoidable and needs to be recognised by government and industry.

The oversight and governance of this potentially highly disruptive process is crucial to ensuring urgent industry activities are maintained. This review does not feel it is appropriate to provide the answers as to what the transition process looks like in detail but it is suggested any interim body has a new leadership board with representatives from industry and government to ensure accountability and alignment.

5.6 Orchestrating a new 'fit for purpose' construction skills ecosystem

It is apparent that the ITBs have at times struggled to optimise their impact against a backdrop of complexity in the wider construction and engineering construction skills and training institutional ecosystem. The breadth of issues that need to be addressed are extensive, some are not in the gift of the current ITBs via their legislative mandate, and involve external agencies, or as already discussed, require a fundamental shift in priorities.

There is an 'ecosystem challenge' summarised perhaps by themes such as:

- enabling government policy – flexible pathways & funding
- measuring outcomes not inputs
- new competency based qualifications & occupational standards
- levy grant system & sector intervention body turbo charged for impact
- professional institutions setting & policing APC Standards & CPD
- current & competent providers/ trainers

- policing a central onsite workers competence register

5.6.1 Occupational standards & qualifications setting

There is a need for a new body to perform much more of a central role in coordinating and orchestrating the wider construction skills system for maximum effect. Not all of the issues facing the engineering construction and construction industries are the responsibility of the current ITBs and nor should they be overly centralised in any one body. They do need to be navigated and improved on though, with appropriate leadership and capability. There is a need to make the wider educational and skills policy environment work better for the industry and the department should continue to work with industry to look at how training provision can be further aligned to future industry need.

This review has found evidence of conflict, duplication and confusion generated in both the construction sector and to a lesser extent the engineering construction sector in relation to standards setting and the wider educational institutional landscape. There is now an urgent need for rationalisation and harmonisation of standards as part of a more optimised construction skills ecosystem which is particularly addressing the workforce wide priorities of competency and productivity.

Some of the issues identified appear to stem from the progressive fragmentation over the last decade at a UK wide level of the previously centralised functions of setting occupational standards, vocational qualification standards and card-based policing. The review has heard evidence for instance that there is conflict and divergence between agencies working within England as well as with devolved national administrations in relation to the institutional governance of occupational standards, accreditations, and funding. There is a need for rationalisation and much more identification of common competencies, more external challenge to industry on how those competencies are defined and better links to critical workforce requirements for the future.

Prior to 2012, CITB was responsible for construction National Occupational Standards (NOS), as well as National Vocational Qualifications and CSCS health & safety cards. This provided a platform for a single integrated system as the Standard Setting Body and aligning that to the ability to access a site card to work.

The 2012 Richard Review of Apprenticeships[74], fundamentally reassessed the approach to apprenticeships in England. The review considered what the core components of an apprenticeship should be, areas of apprenticeship training that could be simplified and whether the qualifications completed as part of an apprenticeship were rigorous enough

[74] Richard Review of Apprenticeships - GOV.UK (www.gov.uk)

to meet the needs of the changing economy. Following this NOS no longer had a formal status in the English apprenticeship and technical education system but are still used within the devolved nations. England introduced a replacement for NOS, known as apprenticeship standards, that described the knowledge, skills, and behaviours an apprentice needs to obtain to be occupationally competent. Subsequently the Skills and Post 16 Education Act 2022 set the expectation that post-16 training, and technical qualifications would align to these standards. To reflect this, apprenticeship standards were renamed occupational standards.

The notable changes in responsibility for qualifications and standards since 2012 are:

- Ofqual implements the General Conditions of Recognition 2012 which introduced a new regulatory framework for vocational qualifications and apprenticeships. CITB role was modified to fit within the new Ofqual framework
- in 2013, DfE launched the Trailblazer Apprenticeship programme which started the move towards taking the responsibility for apprenticeships standards (then the old CITB SASE frameworks) away from CITB to DfE with was what at the time administrative support from ESFA
- in 2015 Qualifications Wales was established
- in 2016 England moves away from using the CITB NOSs. Scotland and Wales continue using them at that stage. Wales subsequently embarked on a separate path in 2018/19 with its own standards and qualifications
- in April 2017 Institute of Apprenticeships (now IfATE) is launched with the new apprenticeship levy. IfATE has a ‘route’ panel for English construction apprenticeships. This leads to the development of Occupational Standards for construction in England. CITB still runs the NOS committees alongside this
- in 2020 T levels for construction are launched for England
- at the end of 2022 CITB’s assurance role as an EQAP transfers to Ofqual
- in 2023 DfE announces changes to the funding of L3 qualifications and below. Construction is a priority sector for change

This steady incremental change has effectively resulted in CITB effectively losing most of the Standard Setting Body role with IfATE taking the standards lead role in England. This review does not feel that needs to be reversed or questioned but there is a clear need for new occupational standards, (which are currently the foundation for a number of technical education products) and the interface with devolved NOS’s in Scotland and Wales to work cohesively and uniformly for construction and engineering construction. This review feels that this challenge is a question of improved collaboration and joined up bigger picture thinking rather than any further structural reform of relevant agencies. Any new body should have a support and promotion role regarding standards that are set by construction employers working with IfATE in England.

5.6.2 Optimising pathways into and through industry

This review has reflected on substantial evidence from multiple stakeholders that the routes into and through the industry are increasingly being challenged as to whether they are appropriate to help create a workforce which is fit for the future and whether they are helping to augment entry numbers. The current pathways have been established largely because of the changes in standard setting described above. This is a reflection in turn of government policy, historical ITB activity and associated industry views on occupational or functional definitions, associated training curricula and end point qualification standards and assessments.

The evidence suggests that the pathways challenge falls into various categories, which are:

- the ability to maximise entry numbers into industry from connecting pre-16 school learners into sustainable long-term employment through the right variety of flexible, attractive and employment aligned routes. These need to span full time to part time academic and/or vocational learning and enable maximum employability
- the appropriateness of the established occupational, qualification and training standards and pathways in relation to their ability to fundamentally drive appropriate levels of workforce wide competence (as opposed to just skills) at all stages in a worker's career starting from initial entry but extending into career long development
- the future proofing of workers by ensuring competence and capability being taught is aligned to both existing needs but also future needs which will fundamentally change to varying degrees what workers need to deliver in their existing or new roles

A useful summary of how the current English learning landscape operates nationally setting both academic and vocational paths against attainment levels is set out on gov.uk.[75]

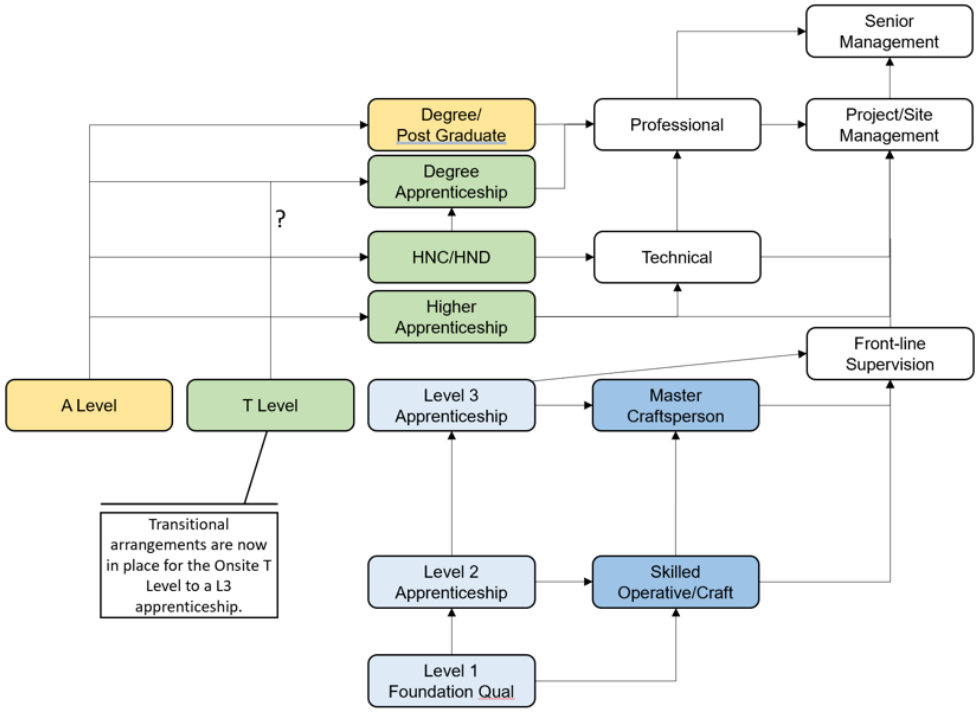
The DfE and CLC have illustrated the current construction specific position for post-16 routes in the Industry Skills Plan[76] and in figure 22 below. The current routes of entry into construction have also been usefully summarised by Build UK[77].

[75] What qualification levels mean: England, Wales and Northern Ireland - GOV.UK

[76] B06322_CLC_SkillsPlan_v27.pdf (constructionleadershipcouncil.co.uk) (p15)

[77] https://builduk.org/wp-content/uploads/2022/11/Routes-of-Entry-Into-Construction.pdf

Figure 202: Construction Leadership Council pathways into construction[78]



The current entry pathways into both industries are dominated by a legacy of trade based and professional discipline silos with very linear and sometimes protracted qualification and progression routes. They are also very much focused on the existing norms of generic occupational groupings and achievement through traditional qualification milestones only, not other more progressive and ongoing interventions to maintain competence.

The question arises as to whether the industry needs an overhaul of these current routes to improve attraction and retention and better enable an ITB model to drive results.

The current direction of travel for education policy has been a series of significant changes to the post-16 landscape, reflected in overall qualification rationalisation, T level introduction, focus on apprenticeships and increased focus on English and Maths attainment. All these aspects have differing impacts on the construction and engineering construction sectors. The House of Commons Select Committee has commented on this agenda of change in 2023 and has both supported (in relation to English & Maths, general qualification rationalisation and apprenticeship focus) and questioned (in relation to T level transition) aspects of this at a national level[79].

[78] From Graham Hastings-Evans by correspondence

[79] The future of post-16 qualifications (parliament.uk)

The job of this review is to provide honest feedback on how the emerging policy landscape works for the construction and engineering construction sectors and whether it is improving or impairing workforce development and resiliency in relation to the wider environment the ITB model is operating in.

5.6.3 Sealing the leaking pipeline

Although traditional apprenticeships, especially for site trades, have long been accepted as the 'gold standard' for vocational training (and indeed is now increasingly a preferred option for higher and degree level training as well), this review has found that there is a question as to whether the current vocational pathway concentration on the traditional apprenticeship model alone is effective in maximising a sufficient and diverse supply of motivated and competent people into the industry. This is not to question the importance of the apprenticeship training pathway but is more about challenging the industry's natural ability or indeed willingness to increase its absorption of traditional apprentices without the apprenticeship pathway or equivalent and associated routes of achievement changing. Any pathways, irrespective of whether they are apprenticeship based or otherwise, need to clearly safeguard the outcomes for both the employee and employer.

This review has heard evidence from progressive and responsible companies and organisations, big and small, about their apprenticeship programmes and future ambitions to drive this pathway for not just their company's benefit but for the wider good of the industry. Ultimately though the responsibility of this review is to stand back and take a dispassionate view on whether this represents the perspective of the industry at large and is scalable. For construction, there is a question mark over whether this is the case or not in a highly fragmented employment supply chain with ongoing relatively high levels of self-employment and with the industry's long term need for more trained and capable resource to offset attrition not being matched by sufficient appetite to engage in the trainee employment process to deliver that outcome, even with an ITB model in place.

Concern regarding the current efficacy of initial entry pathways starts with the observed attrition between the number of post-16 full time learners on construction related courses through to the number of consequent new apprentice or full-time worker starters. Data indicates that circa 30% of people undertaking such courses are not entering the industry into sustained employment despite deciding at 16 to study a construction or engineering construction related course[80]. Anecdotal evidence from FE colleges suggests the reality is an even higher attrition rate. This attrition appears to be mainly a failure to proceed into

[80] DfE FE Outcomes Industry Dashboard - (shinyapps.io)

employment rather than to complete post 16 courses as evidenced below with only a 10% attrition to course completion.

This is very relevant in the context of the talent and resource attraction challenge which is covered elsewhere in this review. The argument that the sectors cannot attract enough new talent is partially undermined by a conclusion that we have a potentially captive pool of young people who are at least initially near to our industry but who we are in part failing for whatever reason to bring into employment.

The reasons for learners leaving construction have been explored in a survey commissioned by CITB in 2017[81]. Although absolute numbers were not assessed and this was a sample survey only, it is a particularly stark and perhaps worrying finding that less than a quarter of those doing a post-16 construction course saw a construction career as a preferred option, suggesting that there is a large proportion of 'by default' learners and entrants into the industry. Conversely, of the leavers, over a quarter concluded it 'just wasn't for them'. This leaves a residual proportion that stay in construction and obtain employment but not as a preferred career option. Focusing on motivation, competence and behaviour of this cohort could be key to improving retention and longer-term industry outcomes. CITB have also commissioned in 2020[82] further research on the nature of the learners who are on construction courses and feedback on some of their experiences which underlines there is a basic issue with maximising and retaining learners.

Table 6: Retention rates - construction, planning and the built environment courses (2019/20 - 2021/22) [83]

Level of course	2019/20	2020/21	2021/22
Total	91.4%	90.2%	90.5%
Level 2	91.3%	89.6%	89.2%
Level 3	90.0%	88.5%	88.9%
Level 4+	82.1%	72.4%	78.3%
Level E/1	91.6%	90.4%	90.8%

[81] The Construction Industry Early Leavers Survey (citb.co.uk)

[82] www.citb.co.uk/media/ongo2zsw/citb_fe_learners_summary.pdf

[83] 'Achievement Rates - Headlines by Age, Level, Qualification Type, SSA T1' from 'Further education and skills', Permanent data table – Explore education statistics – GOV.UK (explore-education-statistics.service.gov.uk)

The above position is then exacerbated by what is seemingly an even worse level of attrition between apprenticeship starts and achievements. This is borne out by recent DfE statistics, below showing circa 50% attrition which the department is working to address.

Table 7: Total achievement rates - construction, planning and the built environment apprenticeships (2018/19 - 2021/22)[84]

	2018/19	2019/20	2020/21	2021/22
Total achievement rates	65.8%	64.1%	60.1%	56.1%

Apprenticeships and traineeships data for the 2022-23 academic year on gov.uk for construction and the built environment route apprenticeships[85] shows the detail of year on year changes in apprenticeship starts for the last period, including apprenticeships which are out of scope for CITB. This worryingly shows a reduction in the last year for on site courses, perhaps already reflecting the poorer economic outlook. Interestingly, there is an increase in design, planning and surveying apprenticeships, maybe reflecting the wider move away from full time academic degree courses and early buy in to the T level pathway for this course. It is also notable that there were more starts in building services engineering apprenticeships than there were in on site construction trades which is not a positive reflection on the ability of CITB and industry to increase new entrants relative to a sector which is independently managing its training pathways, qualifications and attraction challenge.

This two-tiered initial fall away in the journey, firstly from post 16 learners proceeding beyond initial qualification and then through to subsequent industry employment is seemingly linked to not just indecision or a change of mind on career direction from young people, but also a lack of sufficient availability of work experience or structured employment opportunities. This in turn seems to be driven, despite funding for courses, to work readiness issues, inability to fulfil the industry's imperative to be productive from the outset and, perhaps most importantly, the indirect cost impact on employers of their other employees' productivity who are helping to train and mentor. The cost of the latter cannot be underestimated and could often be at least equivalent to the cost of a training course itself. This is not something that the ITB grant funding incentive or indeed apprenticeship levy is able to address. This bandwidth constraint and indirect cost

[84] 'Apprenticeship Achievement Rates Headlines' from 'Apprenticeships and traineeships', Permanent data table – Explore education statistics – GOV.UK (explore-education-statistics.service.gov.uk)

[85] Apprenticeships and traineeships, Academic year 2022/23 – Explore education statistics – GOV.UK (explore-education-statistics.service.gov.uk)

sensitivity is likely to also be a large driver for lack of take up of ITB support in the SME segment of the industry.

The size of this compounded attrition is stark. If one assumes there is 30% attrition from post 16 learning into employment and apprenticeships and then 50% attrition within apprenticeships only, it suggests only between ⅓ and ½ of all 16 year old learner commencements end up in sustainable, qualification backed employment.

The industry's willingness to support new apprenticeships, particularly if they are funded, and then to backtrack when they realise the learning content is not necessarily what industry feels it wants seems to have already been noted in the building services sector[86]. DfE's work to raise awareness of the apprenticeship system could help address this current misconception.

DfE have undertaken some more general, non-construction specific research on apprenticeship achievement and the learner journey which is instructive to inform future pathway evolution[87].

The review has not seen any data relating to the level of attrition from construction related higher education courses into professional and technical employment, but it would seem likely there is an issue here as well, especially as the number of graduates has increased in recent years, and questions have been raised on how well some full-time learning prepares students for the workplace, including questioning the quality of some cognate degree courses.

The industry preference for many employers is still by default to take on someone 'oven ready'. The so-called 'free rider' trend fuelled by low worker loyalty and lack of certainty over training investment payback persists and has been a large driver, as set out in Section 4, for recent migrant worker dependency, especially in London and the Southeast. Any future evolution of the ITBs and the associated skills system needs to be much more focused on realising the full potential of the existing catchment of post 16 construction course learners by improving their ability to find more diverse routes into work which maximise the industry's employment absorption rate in line with often volatile demand and workload.

In terms of apprenticeship achievement, it is not clear how much of this attrition during apprenticeship training itself is people leaving the industry part way through a formal vocational programme as opposed to just not completing end point assessment and gaining final qualifications. This might also be influenced by a more recent recognition during an industry boom that immediate earning power is not always significantly uplifted

[86] 1 in 10 established apprenticeships fail to recruit a single apprentice (feweek.co.uk)

[87] Apprenticeships evaluation 2021: Learners research report (publishing.service.gov.uk)

by securing a final qualification. This also suggests employability, formal qualifications, competence levels and the mandating thereof are all currently misaligned when they should be reflecting the same outcome.

Both attrition scenarios set out above, pre-apprenticeship and during apprenticeships are negative for industry outcomes and again, stemming this leakage must be a priority if industry is to keep what it already has as a realisable talent pipeline rather than being forced to offset the impact of this significant leakage by having to attract even more people in what is a competitive war for talent in which construction struggles.

Turning to other aspects of pathways, concern has been raised from industry stakeholders during this review about the efficacy of the current pre-apprenticeship pathway of an onsite construction T level. The very low current levels of T level learners seem to be partly about low student awareness but also a reflection of shortage of work experience provision from industry. The DfE is aware of the challenges faced by the construction sector and has set out guidance for this sector which includes information on specific barriers such as the Construction Skills Certification Scheme (CSSC) card. A flexible delivery approach has also been launched which includes a ‘supply chain and employer network’ approach and a ‘small team project approach’. These allow students to complete placement hours across an employer’s supply chain and allows students to work in a small team alongside an external employer for up to one third of their industry placement hours. The DfE is also working with the Gatsby Foundation and The Electrotechnical Skills Partnership (TESP) to support the development of an accelerated apprenticeship providing T level graduates a quicker route to become fully qualified electricians CITB also offers an ‘Into Work’ Grant to help employers recruit and retain talent within the construction industry – employers who offer a T level industry placement in the construction industry are eligible for this grant.

The review has heard more positive sentiment in evidence regarding the T level for design, surveying, and planning but, even here, it is still very early in the industry’s journey towards fuller adoption of this pathway and student numbers and links to employment outcomes remain to be proven.

The recent impact of news regarding the introduction of the Advanced British Standard (ABS) should also be monitored for unintended consequences in terms of affecting industry commitment to the still nascent T levels the ABS is now eventually planned to replace. It is also noted however that there are elements of the ABS proposal that support the wider recommendations of this review.

The review heard mixed views regarding the format, duration and content of Skills Bootcamps in relation to competency required to underpin employability. DfE and industry should continue to work together to further optimise the use of Skills Bootcamps to form part of a fit for purpose pathway landscape of accelerated traineeships, apprenticeships and other programmes that move the workforce forward in terms of entry points and perhaps more importantly, cross skilling, re-skilling and up skilling.

This review has also heard that there appears to be some challenges with regards to wider policy relating to the setting of minimum levels of English and Maths functional testing attainment for school leavers. The review has received feedback that the current push for higher minimum standards for the whole workforce, whilst fully understood in terms of improving people's life chances, are not always fully aligned to maximising the potential wider catchment of new entrants at entry level or level 1, including reaching learning difficulties and disabilities affected segments or socially disadvantaged learners who have been outside of the mainstream school system. The review heard feedback that the reality of the 'attainment gap' in construction needs to be viewed differently due to the highly practical and often physical work being undertaken and the ability to still earn good money and progress in a career without more traditional academic success.

It is recognised this might challenge current national education policy assumptions but in some instances there is a question of whether construction may require policy to work better for its own context and its rather unique labour force characteristics which as described in Section 4, has a large contingent of entry level / labourer type workers. Many of these will have failed academically at GCSE level but with the right pathways and learning strategies can be given opportunities in the workplace that have progression potential. These don't have to end up as 'jobs of last resort' or over reliance on a low skilled/low prospects cohort of workers which neither serves them or the industry well in the long term. The reality perhaps is that any issues with minimum literacy and numeracy standards are best addressed through more innovative, contextualised approaches to learning strategies and techniques.

It is worth noting that question marks over the efficacy of traditional apprenticeship pathways exist beyond the UK. In Australia for instance serious concern has been raised regarding their dropout rates, the alignment to true competence, employer pressure on providers to sign off end point assessment prematurely and lack of overall contribution to a failing construction sector[88]. All of this has promoted a renewed debate in Australia about the relatively high impact and emotive subject of introducing builder licensing and other direct or indirect worker regulation that safeguards quality outcomes in the face of a declining skills base.

5.6.4 Modular & matrix led system versus linear & siloed

Responding to the findings above, one of the concepts explored during evidence gathering was the benefit in evolving a more modular and unitised approach to occupational standards, qualifications, competency assessments and in turn provision. The impetus for this was to test whether the highly structured and linear approach to traditional apprenticeships, especially for craft workers was at odds with either learner

[88] Construction apprenticeship schemes face overhaul amid poor training, dropout rates (ampproject.org)

desire for more flexibility of choice in career direction or indeed the industry's continued preference to employ trainees with lower levels of long-term commitment.

This hypothesis is essentially mimicking some aspects of the self-employed market but reflected within what might need to be a more dynamic and flexible PAYE model where employers can use a directly employed workforce in a more flexible way but with more control, whilst workers still have improved worker rights and protections. Both the employer and employee could potentially have much more choice in their mutual relationship supported by more powerful strategic employment brokerage or a shared employment/traineeship approach. It should also be noted that the idea of incremental, modular, or indeed micro-credentialised learning better supports the key principle of lifelong learning and in turn wider competency maintenance in the standing workforce as well as the new entrant pool.

There is no scientific way of testing the level of acceptance or appetite for innovation in this regard other than through broader industry engagement and consultation. For such an approach to work it would require occupational standards and competences through both Occupational Standards and NOS to be segmented differently and sliced into a more generic, matrix pathway approach with a different corresponding offer developed by training providers. This would currently have a reliance on an ITB funding model (this would not currently be apprenticeship levy eligible under current rules) The competency and training content would potentially have a points or units-based system that could also create deemed equivalence to parallel traditional apprenticeship routes and would enable a ‘top up’ system which reflects some of the future skills change drivers covered in the next section of this review.

This approach could be implemented across all levels from entry to intermediate to advanced to higher and degree level and be used to promote more multi-skilling and multi-disciplinary learning and qualification. A more agile future workforce is likely to be reliant on a wider skillset and industry understanding and it will also reflect increasing focus on the ‘T’ shaping of workers[89]. There is a general challenge across all pathways to create workers who have broader understanding of the working environment they are operating in whilst founding that in a specific expert domain area, whether craft, technical or professional.

Many reports have highlighted the growing issues of work readiness as a barrier to employment and this is likely to evolve further as the interface with technology changes. The Government Office for Science highlighted an issue with age in this regard (42% of 16-year-old school leavers were viewed as poorly prepared for work by employers), as well as a mismatch between how education providers assess work readiness of their

[89] https://en.wikipedia.org/wiki/T-shaped_skills

students compared to employers[90]. Tellingly, the biggest contributor to work readiness was found to be work experience, and this therefore is arguably a key component of any fit for purpose early career pathway which is going to accelerate post 16 workers into productive and sustainable employment. This is currently positioned as being achievable via the T level route, but this needs further refinement if it is to be rolled out successfully at scale and become a true driver for substantive increase in new entrant numbers and employment, especially for site based operatives. The balance of classroom versus workplace 'learning and earning' is a key part of this challenge, as is the way in which learners can retain routes to their career progression in a more dynamic landscape of options.

Part of the rationale for this proposed more diverse approach between traditional linear apprenticeships and other forms of qualification and training is that the review heard multiple sources of evidence from trades and specialisms who feel they are not properly catered for by the current system, either by IfATE Occupational Standards or indeed ITB/devolved administration NOS. This has been noted to include job roles in civil engineering, building fabric and the building finishes sectors. This in turn has led to a lack of funding and guidance to support standards development, attainment, and competency maintenance in certain sectors, including by employers who are in scope for either the apprenticeship levy and/or the ITB levy.

Modules and units would need to be designed with the ability to respect and reflect experience within the wider competency definition. Although it is clear that experience alone is not reflective of true competence, if this criterion can be tested alongside skills, knowledge and behaviour, there should be an ability to codify and reflect this through a units or points-based system.

In looking at precedents for standards and training models that perhaps better employ more modular and flexible approaches, there are international reference points.

The Austrian approach to construction training is an interesting example[91].

Figure 23 below shows how Austria has developed a modular option for in this instance its apprenticeship pathway, parallel to the more traditional linear model.

In this model, the approach and timelines are as follows:

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[90] https://assets.publishing.service.gov.uk/media/5b51fbdae5274a3fd124c916/Foresight-future-of-skills-lifelong-learning_V8.pdf

[91] https://www.bmaw.gv.at/dam/jcr:818f6afb-fa40-46bc-8ecf-56facd079ab6/Apprenticeship_System_in_Austria.pdf

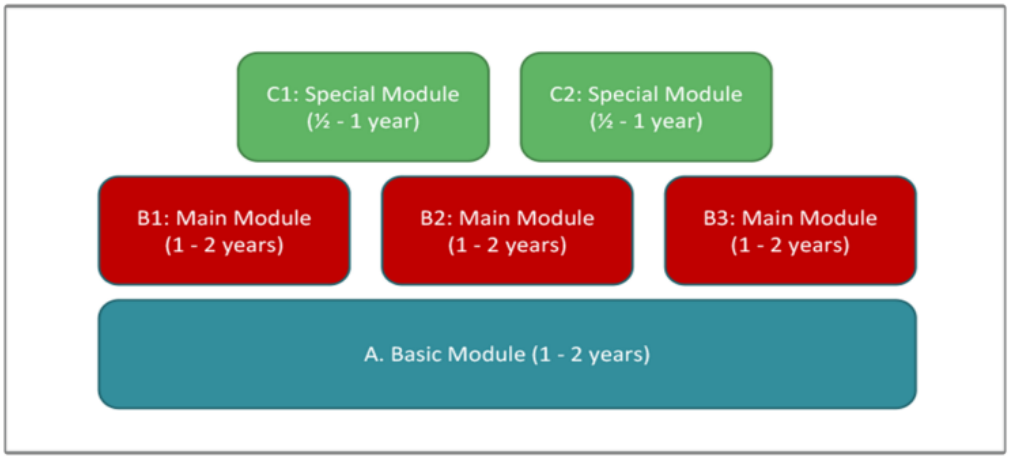
Basic module: The basic module aims to impart the knowledge and skills required for carrying out basic activities of the modular apprenticeship. It has a minimum duration of two years. In justified exceptional cases it can have a reduced duration of one year.

Main module: The main module comprises the knowledge and skills required for exercising the chosen specialisation (e.g., ventilation technology in the modular apprenticeship "Installation and Building Technology"). It has a minimum duration of one year. The duration of the basic and main module must be at least three years. If the basic module – as mentioned above – only takes one year, the main module must have a minimum duration of two years.

Special module (optional): The special module aims to impart the knowledge and skills for special services, products, or their production. It covers a training period of half a year or a full year.

Figure 23: Austria's modular apprenticeship structure[92]

Figure 4: Presentation of the structure of modular apprenticeships; Source: Federal Ministry for Digital and Economic Affairs (BMDW)



Combination possibilities

Different modules can be combined within this system:

- Every apprentice in a modular scheme must first complete the basic module and then the selected main module **(basic module + main module)**. Afterwards, trainees can take the final apprenticeship examination and complete the apprenticeship training.
- In addition, the training in a further main module **(basic module + 1st main module + 2nd main module)** or
- special module **(basic module + main module + special module)** can be agreed between the training company and the apprentice.

[92] Apprenticeship system (bmaw.gv.at)

The German apprenticeship system is also relevant. Table 8 below shows how its Ausbildung skills system is enabling specialisation to be layered on as you progress through a general construction worker programme, gradually filtering between building and civil engineering and ultimately to a specific discipline or trade. Interestingly though, as highlighted earlier, even this model is under strain though from reducing entrant numbers due to an apparent reversal as German society starts to better favour more academic rather than vocational pathways.

Table 8: Common German construction worker Ausbildung modules studied

First Year	Second Year	Third Year
Construction Safety	Structural Systems	Advanced Construction Techniques
Blueprint Reading	Building Codes and Regulations	Construction Project Planning and Control
Building Materials	Construction Project Management	Construction Site Supervision
Tools and Equipment	Building Systems and Services	Building Codes and Standards Compliance
Construction Techniques	Sustainable Construction Practices	Construction Technology and Innovation
Workplace Communication	Construction Estimation and Cost Control	Construction Documentation and Reporting
Mathematics and Measurements	Construction Quality Assurance	Construction Contracts and Legal Aspects
Occupational Health	Building Information Modelling	Professional Development and Career Preparation

Another international benchmark is Singapore. The review engaged with the Singaporean Building & Construction Authority (BCA) during evidence gathering as its training activities, including use of its Skills Development Fund, are seen as a relatively successful international comparator. In this regard, it is worth noting the Singaporean dual career pathway track that has been developed as part of their centrally coordinated

manpower strategy, differentiating between what they reference as their 'CoreTrade Scheme' and their new 'Multi-Skilling Scheme'[93].

Singapore Multi-Skilling Scheme

This scheme provides an alternative pathway for the construction industry to upskill its experienced workers. It complements a separate core trade pathway which caters to workers specialised in key construction trades.

The multi-skilling scheme aims to:

- build up a pool of workers who are competent in multiple construction trades and can carry out more than one type of work task on-site.
- provide employers with greater flexibility in deploying multi-skilled workers on-site, which helps to reduce downtime and improve productivity.

Multi-skilling registration is valid for two years. To renew this registration, workers are required to attend a half day course covering the latest codes and regulations, good practices, and demonstration of new methods, materials, tools and equipment relevant to the specific construction trades and/or areas of responsibility of the worker.

The multi-skilled operative pathway looks to provide an alternative pathway for the Singaporean industry to upgrade its experienced, but non craft/trade qualified workers.

This clearly has parallels to some of the core themes of this review in terms of building more diverse pathways, improving productivity, competency, and utilisation. Although this pathway is immature, it is seen as an important addition to the more traditional career typologies. It is noteworthy that multi-skilling registration only has a 2-year fixed term duration and that there is then an ongoing need to attend what they term Continuing Education and Training (CET) to maintain competency, another theme of this review. This is further built on as a fully coordinated skills system as Singapore operates a centralised Construction Workforce Registration Scheme (CWRS) which represents a single record of all worker competency and is a prerequisite to working on a Singaporean construction site.

This therefore shows an international precedent for holistic pathway diversity, workforce wide competency, productivity and utilisation management and maintenance as well as the policing thereof. This is all in turn linked to Singapore's economic growth strategy so forms part of a bigger national economic plan.

[93] Multi-Skilling Scheme | Building and Construction Authority (BCA)

In Australia, the New South Wales State Government has implemented a series of coordinated workforce development initiatives aimed at addressing upskilling and reskilling. Their 'Smart & Skilled' programme operated by Training Services NSW offers a broad variety of interventions including a Trade Pathways Fund which is looking to challenge accepted norms of trade qualification[94] [95].

In France, there has been significant recent reform of their integrated educational and lifelong learning system[96] including a deliberate move towards using the term 'expertise' in their new framework rather than 'skills'. This is a nod to relevance of competency and operational context in their qualifications and pathways, which are built around competency blocks. Interestingly, France also has a national statutory levy and enforcement system, administered by France compétences, requiring all employers across all sectors to spend minimum amounts on further training of their workforce. This hardwires lifelong learning into their vocational and educational training policy via a compliance requirement and supported by associated funding.

In conclusion, there is a sense that further innovation is needed in pathway design for construction to address attraction and attrition issues. it is recognised however that a more versatile and sometimes deferred mode of learning and career selection also challenges the accepted forms of UK construction employment model which tends to be very siloed in specialist and trade sub-contractor categories. There is a need for industry, HEFE, relevant agencies such as IfATE and any future ITB model, to assess whether a different approach is needed to improve overall competency and to improve the efficacy of pathways in generating increased long term additionality of sustainable employment.

5.6.5 Future proofing curricula for new & existing workers

A key element of defining competency frameworks, occupational and qualification standards and training provision is the appropriate definition of requirements which represent the industry of both today and tomorrow. The means of shaping and defining occupational, qualification and training standards has been traditionally industry led but there is an increasing need to challenge whether employer priorities for today's workforce are being appropriately augmented with sufficient training for future needs.

Completely new occupational standards, qualifications and curricula are only appropriate where there is certainty over near-term demand and longevity for completely new growth markets and stand alone occupations. This might indeed be the case for heat pump

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[94] Skills development for the building and construction industry | NSW Government

[95] Trade Pathways Innovation Fund | NSW Government

[96] https://www.francecompetences.fr/app/uploads/2021/05/20210528_FC_Rapport_EU_certification_UK_final_WEB_dp-1.pdf

installers or retro-fit assessors for instance, but the majority of change impacting competency, especially for site workers, is likely to be much more incremental and this needs to be respected in the setting of more modular standards as previously described. This requires refreshed and up to date standards matched with course provision and trainer capability to ensure they enable short term employability requirements without storing up a short to medium term re-training liability for the industry.

Past inertia against curricula and training content refreshes has not improved the industry's preparedness for significant looming challenges which it will now be facing especially in what is currently a downturn in the construction market where employer confidence to invest in the workforce will be more subdued. This makes any response to the next upturn increasingly prone to labour availability and skills challenges, wage inflation and quality assurance problems as the resource base is potentially stressed more than ever before.

Three particular priority areas for competence transition are discussed below.

5.6.5.1 Green skills

Scope order issues

Although there has been lots of focus and discussion on 'green skills' in recent times, especially in relation to the retrofit agenda, the reality of what this means to individual workers is very different. It is also worth noting that this is where ITB scope delineation as a subset of the whole industry starts to become relevant. CITB scope does not cover for instance parts of industry responsible for heat pump installations, MVHR heat recovery systems and solar hot water/PV installations. All these areas have important construction interfaces and workmanship implications on related in scope building work.

Retrofit activity within CITB scope includes building fabric enhancement and associated general builder's work. This therefore is a major example of where a future specific skills solution needs to be industry wide but is compromised by an ITB in scope intervention only covering part of the solution. This requires an important interfacing and convening function with out of scope parts of the industry. In construction, trade bodies such as Federation of Master Builders (FMB) and in addition the CLC have stepped into an apparent void when it comes to promoting holistic action on retrofit.

The same issues apply to ECITB, and its relationship with emerging parts of the energy generation market where new technologies are not even recognised in the original ITA statutory language. The challenge of working within a wider ecosystem therefore comes to the fore in terms of the external interfaces that need to work better. The broader related issue of the need or otherwise for a ITB scope order review to help take holistic leadership of the workforce development related agenda is addressed later in this review.

New homebuilding

In homebuilding, the impending Future Homes Standard and linked Home Energy Model, due to be introduced in 2025 will further challenge the industry to deliver a demanding standard for residential buildings and to use more innovative technology solutions for heating and ventilation.

Currently, the bulk of work happening to pre-empt this appears to be led by Future Homes Hub. Skills Gap work is rightly identified on their roadmap[97] but there is a sense that CITB should be much more on the front foot around this issue, strategically planning around implications on training, and proactively actioning and funding the retraining requirements already known. Indeed, initial feedback from exemplar live build pilots and R&D work by major homebuilders suggests there is an ongoing performance gap issue delivering to higher fabric specifications via traditional construction techniques. The related workmanship and skill requirements means it is going to be more difficult to deliver performance at scale even to the less demanding contender specification levels aligned to 2021 Part L Building Regulations.

Professional & technical skills

Decarbonising new build construction more generally will require a whole new range of design and technical skills for technical and professional workers. Although partly out of ITB scope, the professional and technical worker challenge requires significant attention to both entry pathways, end qualifications, Continuing Education & Training (CET) and professional institution governed Continuous Professional Development (CPD). This is vital to ensure that workers are future proofed, and that understanding is developed quickly of new green technologies, processes, delivery and commissioning techniques so projects can be designed, planned and implemented differently at scale as required by both regulation and general market evolution.

The professional institutions and higher and further education sector have a crucial leadership role to play here in shifting their requirements via refreshed curricula, tests/assessments of professional competence and continuous professional development to face into the changes that are already happening.

Although a proportion of the industry's wider design, planning and surveying professional services employees work for ITB levy paying companies, the majority are in out-of-scope segments of the market so the ability to influence wider change through ITB activity is limited and this becomes a bigger question beyond the terms of reference of this review but relevant for the broader skills ecosystem.

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[97] https://www.futurehomes.org.uk/roadmap

For ECITB, it is recognised that there is a larger proportion of professional and technical in scope workers who are higher level or degree level learners and who will urgently need their training content to be revalidated to enable them to be competent in the face of the significant changes that are happening in decarbonising both industrial and energy production processes and the impact of new technology.

Craft & site operative skills

Turning to site-based trade and technical workers, there is a much more basic need to look at practical skills transferability from existing capabilities. There are more subtle changes to core on site operations, which are more about using new materials, learning new product/component interfaces or ensuring increased attention to detail on tolerances, processes or final workmanship standards.

Much of this site worker retraining may not be overly complex or difficult but creates a large volume of subtle and progressive reskilling interventions which need to be prioritised in terms of new occupational standards, qualifications, pathways and ultimately provision of training.

There is a recognition that some more adaptable and pan industry trades are not significantly affected by a move to green assets and processes (ie scaffolders and welders) where occupational competence requirements are similar working in oil and gas versus nuclear versus renewable energy versus building construction. However, it is also clear that sector to sector skills transfer is not straightforward and requires better industry segment collaboration. The recent challenges landing the Scottish Government supported OPITO Energy Skills Passport to allow skills transferability between oil and gas and offshore wind is an example[98].

Strategic impacts

It is worthwhile to consider the wider indirect impact of climate change on the construction industry as there could be changes in the type of projects being commissioned, shifting workload patterns. For instance, an investor or indeed future regulated market move towards embodied carbon reduction will lead to less wholesale demolition with more building adaption and repurposing. This will increase the need for designers, surveyors and contractors to better understand the technical and risk implications of designing, planning, and managing refurbishment and extensions which are arguably more complex than new build.

[98] https://www.energyvoice.com/renewables-energy-transition/wind/497890/skills-passport-wind-oil-energy-gwo-opito/

Similarly, future workforce projections for conventional demolition operatives and even concrete frame workers may well be overstated and there might be much more of a need for material recycling expertise or diamond cutting/deconstruction engineering. This becomes an additional challenge that needs to be addressed in any new strategic workforce planning model.

Industry readiness

There is a question mark in the light of all of the above as to whether the current ITBs have been acting swiftly enough in responding to new environmental change drivers. This conclusion is supported by what already appear to be latent issues related to 2021 Part L Building Regulations and Future Homes Standard (FHS) implications on traditional homebuilding trades and major energy infrastructure needs such as renewables and nuclear. All have implications on potentially worsening current and future workforce gaps and skills gaps.

It is the feeling that CITB in particular should have been more ruthlessly focused on these big issues and creating a tension for change as opposed to perhaps being too responsive and subservient to industry. Parts of industry have been lobbying against the scale of regulatory change and protecting against what is viewed as a risk of worsening current employer labour pinch points. It is recognised that the exact requirements of regulatory change have been evolving, but this is not considered an excuse though for ITB's not to have evolved their strategies faster.

The direction of travel for many aspects of decarbonisation, including funder and consumer led requirements, is unlikely to change irrespective of the exact pace of regulatory reform, so at scale green upskilling across multiple trades should already be in the process of being implemented. This is a clear example where ITB's being employer led without sufficient external challenge has led to a blind spot. The same applies to building safety which is discussed below.

5.6.5.2 Fire safety design & inspection skills

Regulatory impact

This is an area the construction industry is heavily focused on in relation to workforce and skills gaps. There has been much attention, quite rightly, on construction product standards and the testing and certification of performance of products in a fire. However, complex building systems are the end output of products, processes and ultimately people. It is the latter that this review is primarily focused on but especially the linked dependency for competent workers to use products and apply processes correctly, whether that be via clienting, business leadership, design, procurement, planning, management, supervision or installation. This review is also interested in the much thornier issue of industry wide competency and quality assurance beyond fire, structural safety or indeed wider Building Regulations.

Implications on capacity

Having sufficient industry capacity of competent workers to deliver the future pipeline of Higher-Risk Buildings will be key to the deliverability of change required by the new Building Safety Act regime and meeting the requirements of the regulator. The initial backlog of existing building remedial actions is only going to exacerbate the pressure on new projects.

The problem starts in design, which is mostly out of CITB scope. The ability to competently design and model a building for the new requirements is going to test the knowledge and experience of the design professions, and their ability to deliver a truly integrated solution. Accepted procurement norms could also challenge the ability to better integrate supply chain expertise to overcome this.

There is then also the related problem in the capacity and scalability of approvers and inspectors checking others work whose own competence in many ways is a major logistical impediment to delivering regulatory reform. Early indications suggest this new mandate is likely to show a marked insufficiency in industry capability and will illustrate the reality of the ‘competency filter’ set out in section 5.4 above with a potential bottleneck in the capacity to deliver higher risk buildings.

Some parts of industry will argue that this is caused by the bar being raised too high but this is in reality about getting the relevant actors to do what they should have always been doing within a self-regulated environment. The inevitable conclusion, reinforced by the Grenfell Tower Inquiry, is that skills and competency have been allowed to be diluted by industry due to a lack of consequences for poor performance.

Products versus workmanship

There is an important interface between product testing and certification and the competency attainment of the workforce responsible for product installation. The need for clarity on the conditions and context in which products are used including the wider elemental and whole building dependencies of correct installation will be key to any new building safety regime.

There will be an increase in the need for specialist training for construction managers, supervisors and installers covering multiple proprietary solutions and the associated need for the licencing of approved installers of proprietary products to be much more rigorously policed. This IP differentiated slicing of the product market could prevent at scale training solutions being developed and also prevent more generic skills and competencies being taught and applied to multiple product types within defined families.

There will be a need to run programmatic at scale interventions to improve building safety, preferably with active support from the product manufacturers themselves who should have a vested interest in assuring outcomes using their goods. This principle also applies to higher levels of pre-manufacturing using MMC categorised solutions.

Whether safety related competency can be quickly built at scale for construction site operatives, supervisors and managers will potentially be an acid test of wider competency beyond the fire safety arena. Like green skills, much of the impact on site-based operatives will be more subtle, addressing accuracy, attention to detail, willingness not to compromise alongside elements of understanding new technical or proprietary interface and installation details.

Industry inertia

The conclusion of this review is that it is not evident that this challenge has been seized by either CITB or indeed by industry with anywhere near the urgency required to be adequately prepared for the now live BSA regime and the wider implications of BRAE and how Principal Contractors will discharge their wider workforce competency obligations. Not facing into a problem early enough does not bode well for addressing broader implications of improving workforce quality to drive capacity. Improving competency to drive productivity and increase industry bandwidth has a much less urgent connotation than improving competency to make buildings safe to live in. If the latter has not driven timely action, it will be even tougher to address a less regulated or unregulated labour market transition to doing things better unless there are real equivalent tangible consequences for not doing so. It is vital that a clear narrative and benefits case is developed as to why this is so important to the industry's future fortunes.

This review feels it will require a wider compliance 'stick' as well as a funding support 'carrot' to drive change and that is discussed further in section 5.8 below.

5.6.5.3 Digital skills

Impact of professional services

The increasing role of artificial intelligence will undoubtedly have implications for construction and engineering construction. It is likely to be more significant for medium term knowledge-based worker requirements in higher level and degree level technical and professional services than those in many site- based physical functions which will be much harder to automate or replace, even with AI.

This higher level of predicted AI impact on professional services and those with more advanced qualifications has been identified in the recent government review into the subject[99]. It specifically refers to jobs in accountancy and finance as being most at risk but in a construction context this is likely to extend into some aspects of occupations

99 https://assets.publishing.service.gov.uk/media/656856b8cc1ec500138eef49/Gov.UK_Impact_of_AI_on_UK_Jobs_and_Training.pdf

such as quantity surveying, contract commercial management as well as internal business administration, document controllers and the like.

It would therefore not be correct for instance to assume that future numbers in these job roles will be linear extrapolations of historic norms. There is likely to be accelerated impact of technology automation and augmentation where labour-intensive administrative and transactional tasks will be carried out increasingly using technology solutions. These might be increasingly integrated with intelligent digital design and construction models created by other design and construction occupations and will result in the beginning of a need for building professionals to be much more versatile and multi-disciplinary in their training and practice as boundaries begin to blur.

With current progress in generative design and algorithm supported tools and possible future progress towards more rules-based and codified town planning it is likely that some designers and planners will have their lower value tasks automated. It is important that ITBs and the professional institutions do not develop a blind spot in relation to how quickly this could take hold. Not only will it alter future employment projections, but it will also fundamentally challenge current professionals' ability to transition quickly from data creation to data analysis and underline the increased importance of interpersonal / communication skills.

This challenge is already starting to be seen in the legal profession for instance[100]. The speed of change will also be hastened by labour scarcity and associated structural wage inflation making labour/capital redeployment more urgent in the eyes of employers.

This all shifts the competency map and teaching and qualification requirements. There could be future difficulties for younger professionals where the learning and experience journey has previously taken place over a longer career period and has been complemented by more progressive and gradual experience to underpin subsequent additional responsibility being given.

As there are current workforce gaps in some professional service roles in construction and engineering construction, anything that quickly and markedly improves productivity has to be a benefit so the task for the ITBs in a future state must be to help manage and influence, where in scope, the reskilling of technicians and professionals.

Role of educators and the professions

There is also a need to participate in a wider debate with professional institutions and the HEFE sector on course quality and curricula alongside IfATE and possibly the Quality Assurance Agency for Higher Education. The current discourse about poor quality or

[100] https://www.ft.com/content/f1aff4d0-b2c5-4266-aa0a-604ef14894bb

irrelevant university degrees is only likely to increase as technology changes workplace needs. There is also a need for funding to be prioritised towards better applied research which looks to directly help industry solve its key process and productivity challenges, both by using technology and improving workforce capacity generally.

Impact on craft and site operatives

This possible future trend regarding built environment professionals' exposure to transformative technology applications does not mean technology won't have a wider role across all operations including on site. The relative impact on headcount requirements for site operations is however likely to be less.

This nuancing of how technology or other trends will impact future workforce numbers and productivity, as previously referenced, does not appear to be fully reflected in current strategic workforce planning research like CITB's Construction Skills Network report or the ECITB's Labour Forecasting Tool and is yet another modelling variable for a revamped and recommended future strategic workforce planning tool.

In the area of high impact technology adoption, it is an encouraging example to see ECITB provide its support for a drone operator course which reflects how previously labour-intensive inspection processes, often involving scaffolding and abseiling requirements, can be made much more productive via increasingly mainstream technology applications. It is possible that drone use will increasingly be coupled with visual recognition AI functionality to even further augment inspection routines with end interpretation by human experts[101].

There have been some interesting opinions shared with this review on the best approach to enhancing site workers' current digital capabilities. Some see the push towards digitalisation as being too much too quickly and risking overwhelming workers. Others have made the logical point that industry is not fully leveraging the reality of 'iPhone' culture and familiarity with app based, gamified approaches in the workplace, especially for younger workers who are already comfortable with this functionality.

The potential of wearable and digital technologies including Augmented Reality, has indeed been researched and reported on by CITB for both learning[102] and site-based application[103] but it is unclear whether this has driven a strategic outcome other than changing some forms of simulation training being provided for the likes of plant operators. There is real potential for large scale change when multi trade operatives on site are starting to routinely use AR and app-based tools in their day-to-day jobs. This in

[101] https://www.ecitb.org.uk/qualifications-and-training/foundation-unmanned-aircraft-systems-uas-training-course/

[102] https://www.citb.co.uk/media/j0yl5xqn/t1438-rr-citb-a_new_reality_report-esonly-web.pdf

[103] https://www.citb.co.uk/media/0pkin1nj/citb_constructions_digital_future_report_oct2018.pdf

turn needs to be trained for now, at scale, as big breakthroughs in practical digital site-based tools are starting to happen.

The use of practical and mass available technology tools on site, intuitive and simple to use, particularly at the final workface, are seen as integral to the ways in which productivity and quality will be incrementally improved. It is a lazy assumption to think that construction will be resistant to technological change and current advancements in Category 7 Modern Methods of Construction applications[104] shows the broad range of potential tools and robotic process automation which are likely to increasingly be used in combination with more traditional techniques.

In conclusion, there is likely therefore to be a wide spread of technology driven disruption across some occupations in the period ahead with the key variable being whether tasks can be automated rather than just augmented. It feels likely however that the part of our industry where the biggest workforce gaps and ongoing attraction issues remain – site-based labour, is not going to see as quick an improvement in digital technology enabled productivity as in professional services. As long as people not robots are carrying out site based construction processes this will remain a worker augmentation not automation led productivity opportunity.

5.6.5.4 Modern methods of construction skills

Reflecting market maturity

The UK's journey towards long term and sustainable increased adoption of Modern Methods of Construction (MMC) is gradually maturing. Many tasks are progressively moving from being executed solely at the final workface towards a hybrid blend of on site, near site and offsite pre-manufacturing operations and technology applications. The industry's skills and associated training provision will need to change to reflect this, including potentially an increased blend of multi-skilling.

Wider market dynamics and heavily embedded traditional ways of delivery mean that change is likely to be subtle and nuanced. Many people still mistakenly consider MMC (often incorrectly conflated with the term 'modular') as being a binary choice compared to traditional construction when in fact it is a continuum. The industry is gradually making business case led choices to progress along that continuum and this should be the key area of future focus for MMC related workforce impact.

In the opinion of this review, addressing on site integration and interfacing of pre-manufactured construction with traditionally built scope and its consequent impact on

[104] https://www.cast-consultancy.com/wp-content/uploads/2019/03/MMC-I-Pad-base_GOVUK-FINAL_SECURE.pdf

more traditional site skills should be the priority. This should be much more progressive and intelligently blended to ensure aspects of manufacturing and traditional craft are adequately combined to give workers choices across multi-skilled and core trade/technical/professional skills and to reflect what is likely to be increasingly hybrid construction techniques which evolve to address labour scarcity, regulatory reform, and decarbonisation challenges.

Much of this shift is about training existing workers for the impact of logistics, new construction details and interfaces between traditionally constructed work and pre-manufactured assemblies. The training of workers in the construction supply chain creating MMC solutions in factories is largely out of CITB scope. However, manufacturers will need to be part of the training solutions for site-based workers to ensure the integrity of their products in any final constructed asset.

Many manufacturers are already doing their own bespoke training for their factory workers and this is not considered an area that should fall into future scope for ITB funding support albeit there is a case for occupational standard evolution. The scope implications of this area of activity is discussed further in section 5.10 below.

Professional education driving production efficiency

Enablement of MMC is vastly improved when designers deploy ‘Design for Manufacturing & Assembly’ (DfMA) thinking. This is a major enabler for downstream on-site efficiency whether it is simple buildability aspects or standardisation and repetition principles. Although training for this is also largely out of ITB scope, it is still disappointing to see a lack of active engagement with professional institutions and HEFE colleges to understand how DfMA in design can better harness benefit to site based skills needs and productivity.

There are also related issues for other professional services such as quantity surveying, project and construction management. The ability to better understand and be competent in the commercial and procurement aspects of innovative construction as well as how to realise speed and quality benefits in delivery on site is as important as the site operative competency challenge.

5.6.6 Establishing & maintaining ‘whole of workforce’ minimum competency

Barriers to entry

One of the conclusions from reviewing the current pathway landscape is that there is little outside of formal qualification attainment which ensures the existing workforce is being kept current in their learning and training portfolio. As construction technical and performance standards change and technology increasingly impacts worker roles and requirements, the role of continuing development, whether professional, technical or at trade operative level, needs to be increasingly defined and mapped onto current and emerging requirements.

The historic situation in large parts of the non-regulated construction and engineering construction sectors has been that once a worker enters the industry, they are able to stay in and continue to practice even if they never achieve further qualifications or assessments beyond their entry level point. That situation is arguably no longer reflective of an industry which must step change its ability to deliver better outcomes, largely relying on its existing standing workforce.

The aspiration for a ‘ladder of opportunity’ must also be set against a ‘snakes and ladders’ consequence of not maintaining competence with a backdrop of changing industry needs and the potential prospect of not being able to work on a site unless a worker demonstrates and maintains minimum levels of capability.

Leveraging Building Safety Regulations

There is a risk that a sizeable proportion of the workforce is not just short of some of the skills, knowledge, and experience to carry out their role competently but are also lacking the behavioural characteristics linked to the wider competency definition. The Grenfell Tower Inquiry has evidenced some of the deep-seated issues not just in the industry’s processes and regulations but also in the behaviour of its participants from site installers to end clients and their advisors. This is all reinforced by the wider structural and trading environment flaws the industry has. In many ways resolving the behavioural aspects of competency can potentially be the deciding factor in final outcomes.

In building construction, the ramifications of the Grenfell Tower fire and the conclusions reached regarding absence of consequences for failure, have highlighted a basic shortfall in workforce competency across the board. This includes an apparent willingness by some to apply the wrong processes or actively ignore/conceal poor work. A poorly regulated construction product testing and certification market and building control process are also implicated.

True competency validation and maintenance as a concept is starting from a relatively low base in construction. Barriers to entry have been low and mandated upskilling requirements have been virtually non-existent. Any shift towards minimum competency will represent a significant culture shock and for this to be effective outside of regulatory requirements, it will require an entirely new approach to client led mandating, policing, and the introduction of consequences for non-compliance. This is discussed further later in this review.

The impact of poor workforce competency at all levels can disproportionately amplify consequences in any chain of failure despite an understandable recent focus on combustible materials. As set out above in section 5.6.5.2, it is ultimately competency that dictates decisions on how to act as a client, how to specify and design, how to procure and how to reduce costs without impacting function and performance. The inanimate products used in the process clearly need to perform in the way they are meant to, but it is also clear that poor design or installation can undermine the end

outcome. The human process element cannot therefore be decoupled from the inanimate product part of the equation.

Expanding the point on the public safety of built assets to the construction workforce itself, many commentators have referenced improvements in the sector's seeming acceptance of an imperative for health & safety standards over the last 20 years as evidence that construction can undergo wider cultural and behavioural change. Ultimately the ability to work safely is implicitly linked to competency.

The fact remains however that in the latest HSE reporting year, construction had 45 fatal accidents, which is a 55% year on year increase. This must bring into question whether we really have seen long term change or whether the increasing stresses and strains on the workforce are effectively now manifesting in reduced competency and increased failure and accident rates. Ultimately more mistakes are clearly being made and there is responsibility somewhere in the workforce for that, from boardroom to site.

In construction, the starting point for the huge competency challenge has to be to build on the work of the current array of specialist trade and professional body led competency regimes and indeed the building safety regulatory regime.

There are multiple examples, some of which have already been shared, of individual parts of the industry starting to address competency. The reality is that early focus of creating competency frameworks and ensuring attainment are for obvious reasons, primarily focusing on safety challenges. There is a much wider challenge to ensure all work done by industry is Building Regulations compliant or to the required standard even where Building Regulations do not apply.

The regulatory impetus provided by BSA and BRAE is seen as a good start point for a wider conversation about whole of industry competency. There is no real ability to assess accurately how many workers in the construction industry will be impacted by this legislation, but it is likely to be over 1 million workers operating in the mid to high rise apartment design, procurement, and construction process. Of this proportion, a majority are likely to be in CITB scope in terms of core structural and envelope related trades. This reinforces the fact that a huge competency verification and attainment challenge already faces the many employers within CITB scope. As already highlighted, there is no real sense that the industry is adequately prepared.

The complexity of the backdrop to installer competency unification and scale up is illustrated by figure 24 below showing the various actors, schemes, and influences on this whole debate.

Figure 24: The installer field in construction[105]

- CLC
- Main contractors
- Clients
- Trade unions
- Minimum/ mandatory technical competencies
- WG2
- Certification scheme owners/ operators
- Trustmark
- Training boards
- Dept. for Business and Trade
- Card schemes
- DLUHC
- DESNZ
- Sector skills partnerships
- ISO 17065 / ISO 17024
- Apprenticeships
- Qualifications
- BSI / BSI Flex 8670
- Building Safety Regulator
- Occupational Standards
- Qualifications
- Trade associations
- IfATE
- JCI
- National occupational standards
- Training providers
- UK devolved authorities
- Home Office
- HSE
- Awarding organisations
- CSG
- Professional institutions
- DfE
- Manufacturers
- Checkatrade, etc

[105] Andrew Eldred (ECA) in correspondence

Thinking Competency Beyond Building Safety

This review has presented a case for the link between competency and productivity. The suggestion is that minimum competence should be driven further and deeper into industry, across all buildings and engineering infrastructure assets to drive a strategic benefit in terms of relative output and the quality assurance of that output. It is recognised that the ambition of BRAE is to drive competency into wider Building Regulations compliance but even then there are still aspects of construction not subject to Approved Documents and the means of achieving this is not clear at an individual worker level.

The engineering construction industry has, of its own volition, advanced a successful initiative, Connected Competence[106] which has been led by ECITB. In the absence of any specific regulatory compliance, beyond core health and safety requirements, ECITB, together with end clients and industry employers have collaborated to agree on unified competency standards for workers (as opposed to corporate level competence).

Although there is a question mark over whether this is more focused on hard skills, knowledge and experience than behaviours, the concept itself and the collaboration evidenced is sound. This review feels it is a scalable proposition that should be used to show the way for not just the oil and gas sector in which this initiative has its roots, but for other engineering construction and construction sectors. The fact that the platform has its own digital micro-credentials badging system also points towards other recommendations in this review regarding a unified industry wide competency register as well as a means of policing competency.

In construction, CLC has started to explore the potential for a move towards a whole of workforce competency programme, leveraging off work done to date, including lessons learned though in the Installer Working Group 2 of the originally convened Competency Steering Group (CSG).

The emerging future vision proposed by the leads of the CLC Competency workstream, Faye Burnett and Andrew Eldred, has been kindly shared with this review:

> “Every occupation within the built environment should have seamless access to a standardised competence framework, facilitating the easy identification of competence required for their respective roles, along with a clear trajectory toward competence.

[106] https://connectedcompetence.co.uk/

> Once the SKEB and the Route to Competence are delineated for a given occupation, individuals have the opportunity to curate their own competence profiles. These profiles would comprehensively detail completed training, adherence to card schemes, etc., presented in a RAG (Red, Amber, Green) status format, serving as a demonstrative record of competence. This collaborative initiative involves coordination with card scheme providers, IfATE Apprenticeship Standards, National Occupational Standards, other qualifications, Trade Associations, and Industry Competence Groups.
>
> This approach ensures that industry takes ownership of competence standards, empowering occupations to dynamically update SKEB requirements in response to evolving skill sets, such as the changes in Net Zero Carbon skills with the creation of innovative methods.
>
> Each occupation would possess a tailored competence framework, fostering the establishment of clear career paths. For instance, an individual demonstrating requisite SKEB for an installer role could seamlessly progress to a Site Supervisor role by incrementally incorporating the additional SKEB necessary for the advanced position".

The implementation of this vision will be difficult and laden with real risk of becoming stuck in industry politics and vested interests. There is an urgent need for reasons already described elsewhere to work through this and to drive expansive and rapid change. The current thinking from CLC is to adopt a Programme Management approach, bringing together each stakeholder grouping into a centrally coordinated hub to drive cohesion and consistency and with the appropriate level of overall leadership.

The role of a future ITB body in this needs definition. It also needs clear delineation with the role of IfATE and the devolved administrations. It needs to respect that current in-house specialist competency and personnel development capability in the ITBs is minimal but also that funding can be provided to others to operationalise some of the required roles, away from people volunteering outside of the day job. This approach will require capability and appropriate resource commitment which should be part of a funding strategy for whole of workforce competency improvement.

Competency Driven Productivity At Scale

It is broadly recognised that training for competency should implicitly include training for productivity. As part of this review's research into mechanisms by which large scale impactful programmes can be implemented, we have seen evidence of proposals which attempt to transfer typical manufacturing sector 'lean' principles into a more construction conducive language and with more appropriate applied learning and cognitive strategies. These feature on site facilitated workshops, coaching and face to face plus virtual online support follow ups focusing on such areas as:

- construction waste reduction
- practical problem solving
- visual management
- collaborative planning and controls

The approaches to landing this span hard and soft skills including key behavioural aspects which go to the heart of true competency. Similarly, to the Connected Competence approach a digital micro-credentials register can be used to record and verify attainment.

In terms of scale up plans, this review has also seen proposals which seek to leverage the development of an initial cohort of productivity improvement practitioners which can be trained and then in turn drive a cascade affect and an exponential level of impact into the industry, reaching hundreds of thousands of workers and ultimately 1 - 1.3 million workers over a 5/6-year period. This is the scale of ambition and impact which this review feels are needed and underlines the step change from the level of worker interventions currently happening through ITB activity. Essentially rather than narrow and deep this becomes much more about wide and shallow, but meaningful interventions.

The review is also aware that IPA, through its *Transforming Infrastructure Performance* programme is actively embracing front end productivity training for its senior professionals, addressing clienting, design, procurement and setting up for downstream success. Although most of this will be out of scope for the ITBs, there is also clearly the potential discussed later, for government wide programmes and major projects to include specific mandated contractual requirements for onsite worker productivity training and other more inventive but high impact interventions into workforce development beyond just new apprentice targets.

5.7 A ‘fit for purpose’ training provision to reflect new pathways & qualifications

Capacity building

The themes discussed above all have fundamental implications on the nature of the training provision required in the future. There is a need for a new cohort of trainers who can teach the required hard and soft skills for maximum impact. Without this a new standards and pathways strategy cannot be implemented.

‘Training the trainers’ is therefore an industry priority which is the start of the journey towards scalable interventions across industry tasked with lifting competency. Without sufficient, quality assured provision, any attempt to deliver change will fail. This requires a new approach as to how a new ITB body, industry and training providers all work together to fundamentally shift outcomes.

If training capability is put in place, the next question is how to drive continuing education and training in competency and productivity at a mass scale across the workforce. Although the role of general productivity improvement and the adoption of digital technology and MMC have both been researched and reported on by CITB, there has been no strategic CITB use of this research to drive or inform a reset of training pathways or provision for existing workers as well as new entrants. This needs to change.

There is a core need to improve and augment the currency and industry alignment of teachers whilst recognising that relative reward is a barrier here compared to working in industry. Exploration of incentives to attract more key construction course trainer / assessor staff is clearly constrained by funding arrangements from DfE but a more innovative approach should be taken, especially with the potential for more end of career operatives looking for a work/life balance shift.

The term ‘retain to train’ was used in evidence as a useful summary of how we need to recycle end of career experienced and competent workers, current in industry techniques, with the right mentoring and teaching behaviours, to drive the quality of both new entrants and the wider workforce.

Alongside the overarching ‘train the trainers’ challenge, there is an equal if not more pressing need to ‘training the policers’ ie those that are going to increasingly be the guardians of compliance and quality. This might be related to Building Control, Clerks of Works, retrofit assessors, fire safety professionals or other areas linked to BSA compliance. Unless there is sufficient bandwidth in the industry to police its output then there is a potential failure point ahead. It is hoped the advent of technology will augment bandwidth in this area via increased digital assurance and inspection techniques, but ultimately human expertise will still be required and will need to be applied competently and at scale.

Innovation & quality in delivery

The quality of training in response to current pathways has been found to be variable. There is an overarching feeling that it requires improvement and that the ITBs’ role in policing that also needs to improve. Current teaching is further compromised by out-of-date curricula and standards and more importantly lack of currency of teachers relative to workplace expectations and new methods/regulations.

Traditional training pathways and the current wider educational framework for post-16 education linked to achieving basic English and Maths standards are seen by some as acting as a barrier to some potential new entrants who could still prosper without traditional means of demonstrating minimum functional attainment.

Concerns has been raised in evidence gathering that there is too much classroom-based learning and that more should be done at the workplace or in a simulated workplace environment.

The review has heard that CITB policing of construction training providers has been poor and there is a high likelihood that accreditations and qualifications are being awarded that are not reflective of true worker competence or capability. This includes evidence of suspected gangmaster led attempts to defraud online digital CSCS courses through impersonation and unauthorised assistance, including in basic ability to speak English.

The policing of standards must be a core role of any new body and this finding is of concern. This should however not seek to prevent technology enabled online training as it is clearly an efficient learning mode and can be very effective when the right checks and balances are applied, including use of smart artificial intelligence led tools. Virtual digital learning can be used to deliver scalable cross industry interventions and when combined with in person training, has been confirmed to be an important training mechanism from many sources by this review.

As a cautionary note on the ITBs' role in policing and leading appropriate training provision in industry, it is relevant to reference the 2023 Ofsted inspection report of CITB, resulting in a 'Requires Improvement' rating across all aspects of provision[107]. Reflecting an inspection of 10 of CITB's sub-contracted providers, it paints a very poor picture of oversight of the standards being applied to the learning process and in the outcomes being achieved by learners. It clearly also reflects badly on the colleges themselves. This is not the standard expected of any organisation showing itself capable of becoming a world class workforce development organisation, which is the essential challenge of this review.

Supporting SME owners

The associated productivity penalty and indirect cost of overseeing employed trainees has already been mentioned. It has also been found that there is a lack of more practical training and support to micro-businesses both to administer their own businesses and to act as a fit for purpose employer to others, including trainees. It is noted that the National Federation of Builders (NFB) is funding and running its own 'bootcamp' national training roadshow for small business owners/directors to address this area of competence often overlooked[108].

In terms of employer bandwidth to take on trainees, there is also a potential need for more shared mentorship networks that do not rely solely on supervisors within employer organisations and can spread the indirect cost and burden of training amongst multiple employers.

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[107] https://reports.ofsted.gov.uk/provider/33/51170

[108] https://www.builders.org.uk/events/directors-unplugged-a-day-of-leadership-financial-mastery-in-ipswich/

Diversifying Provision

It has already been referenced that this review has heard evidence that parts of the construction industry have not been able to access CITB support for supporting provision expansion in non-accepted apprenticeship pathways, potentially made worse by devolved administration and skills system conflict. This is exemplified by the establishment of the CECA Academy for civil engineering training in Scotland[109]. Running more modular, short course programmes, this facility has recently been set up to supply the booming Scottish civil engineering market directly with employable and competent workers in short order but ultimately it did so without CITB support which the CITB has set out was due to value for money issues.

CECA Scotland Academy

The CECA Scotland Academy is an industry-driven programme designed to create a pathway from full-time education directly into the Scottish civil engineering sector. The national programme has been developed by industry by CECA Scotland, Energy Skills Partnership and Scotland's colleges.

The short course and qualification involve 18 weeks full-time at college and is a practical course delivered outdoors. Covering all aspects of health, wellbeing and working safety, it focuses on ground related works such as finding services, digging, and reinstating ground, working with concrete, kerbs and drainage. The course is open to all young people – irrespective of academic level, sex or background.

All students who successfully complete the course will be guaranteed an interview with a civil engineering contractor, with a realistic ambition of employment.

Conversely, there are good examples in England of CITB supported non apprenticeship training provision. In bricklaying, the offer developed by the Association of Brickwork Contractors and its Assessment Centre in response to a broader trade specific range of standards and competency components is also worthy of note, offering a blend of incremental training and upskilling[110]. This is a useful exemplar of how a scalable short intervention skilling and upskilling proposition can be developed. What is perhaps lacking though is the impetus of learners to undertake such courses as a condition of acquiring minimum proven competence.

[109] https://cecascotlandacademy.co.uk/

[110] https://bricktraining.co.uk/

Association of Brickwork Contractors Upskilling Programme

The CITB has partnered with the Association of Brickwork Contractors (ABC) on a programme to upskill FE learners and existing workers (bricklayers).

The CITB has funded the creation of 16 short duration on and off-site training courses for bricklayers, based on new standards. The courses provided by the Association of Brickwork Contractors Assessment Centre range from 0.5-2 days and cover all aspects of bricklaying, including masonry cutting & drilling, brick slip systems and materials storage & protection.

The courses have been written directly by bricklaying employers to target bricklayers on a nationwide scale. The courses aimed at further education and skilled workers. The areas covered have been determined by employers due to their relevancy to MMC and to address skills gaps of bricklayers and trainees on their sites.

Through this upskilling project, 4,239 training interventions were delivered against a target of 960 and 1,227 learners gained employment or competence against a target of 500 by end October 2023.

From a senior management and professional services perspective, the activity offered by CIOB Academy[111], and indeed supported by CITB funding, is representative of the interventionist training envisaged here. This approach requires significant scaling up however with more tangible competence testing and more formal continuing professional development validation. It also needs to be demand led by positioning this within an industry recognised whole career pathway matrix that makes all of this mandatory not discretionary in order to perform certain site based roles and gain/retain professional qualifications.

Need for a coherent strategy

The development of a national training provision to reflect a much more diverse and modular 'matrix pathway' will require extensive collaboration between the ITBs, DfE, IfATE and the provider sector. Some of this is already happening but without the benefit of the coherent structure to make qualifications and courses truly modular and accretive towards more generic industry recognised standards of minimum required competence. Changing this should be a key priority for any future ITB model strategy.

In engineering construction, it has been identified that the more clustered/major project led geographic nuclei of employment and industrial activity very much favours a different model of training delivery from a locational perspective. However, the challenge remains with the pathways which these 'Regional Skills Hubs' deliver needing to maximise

[111] https://www.ciobacademy.org/

flexibility, employability, and utilisation of the workforce, especially at site operative level. ECITB's thinking and experience will be relevant in any future ITB model to drive integrated thinking between employers, end clients and providers.

There are still some important areas of training and competency development which the ITBs are stepping in to solve directly despite the overarching strategy being to divest from direct provision and this review concurs with this 'trainer of last resort' role. It is important to leverage use of the retained CITB National Construction College infrastructure but ensure it is operationally efficient. This might be improved through both construction and engineering construction consolidating and sharing their direct provision offer. The ability for such retained ITB training infrastructure to be more efficiently used across both construction and engineering construction has already been referenced.

5.8 Policing a new competency led regime

Current carding landscape

The use of health and safety card systems in both sectors is fragmented and not strategically enabled through the setting of unified standards of broader qualifications and competency attainment. In construction, despite the existence of a Construction Training Register with over 12 million training records there is no true strategy in place for the national mapping and policing of the qualifications of all site workers. There is also as described in the preceding findings a degree of system fraud and attempted gaming including through modern slavery exploitation.

The ITBs' role in card systems has varied over the years, with a move in construction away from direct administration whereas ECITB have moved further towards direct activity in this space.

In construction, there is a broad spectrum of various card systems, The CSCS Alliance represents a significant and welcome aggregation with future collaborative potential. Representing 2 million current card holders in their combined system this could be further leveraged and expanded into non health and safety competency areas across a much broader workforce and become mandated either through regulation or procurement[112].

Future direction of travel

It is noted that a new App based platform, SmartCheck, is being developed. The CLC has also looked to create an umbrella minimum standard for external industry client recognition through the One Industry Logo initiative.

[112] https://www.cscs.uk.com/about/cscs-alliance/

Much more now needs to be done though to further collaborate and translate card systems into a strategic tool for recording and policing worker occupational competency, beyond the basic health and safety matters many such schemes were initially set up to record.

CSCS Smart Check App

CSCS Smart Check is designed to improve the construction industry's card checking procedures and site safety while also helping tackle card fraud. It enables all 2.1 million cards displaying the CSCS logo to be verified using a single app and can also be built into existing card checking systems. The app provides employers with a quick, easy and secure way of ensuring workers have the right CSCS card for the job they do on site.

In the engineering construction sector, good work has been done, enabled by leadership from ECITB, in delivering the Connected Competence scheme. This is an effective and scalable proposition, which importantly, is end client led albeit limited to a particular geography and use within the offshore oil and gas sector, where worker competence has major implications. The Connected Competence scheme has its own digital 'micro-credential' badging scheme and is in turn linked to the ECITB's own safety passport – CCNSG (Client Contractor National Safety Group) and the ACE (Assuring Competence in Engineering) card.

As with many of the construction equivalent card schemes, this is not regarded by some as a 100% failsafe assurance of individual worker competency either in terms of entry level validation or maintaining currency. It is however something that can be further developed and built on. The Connected Competence example of corralling peer group clients and employers through separate but connected charters, agreeing the principles of operative competency through employment and training, and mandating the need for it via procurement and contracts is seen as a leading exemplar of what the wider engineering construction and construction sectors should be moving towards. It clearly signposts competence as being at the heart of workforce safety, productivity, mobility & utilisation, and improved quality of end assets. Ultimately, it needs end clients to ask for it and ultimately demand it if the industry is to see improved standards and by implication, productivity, and output.

This review is of the opinion that there is a good opportunity for successful existing schemes such as these to act as accelerants for scale up. This would fundamentally drive both engineering construction and construction towards a more centralised digital passport / workforce register which can act as a competency-based industry wide barrier to entry beyond building safety or other currently regulated scope. In turn this register should link to the strategic workforce planning tool recommended separately to position

existing workforce capability against future forecast needs and so identify strategic priorities for closing workforce and skills gaps.

ECITB Connected Competence

Until recently, workers have often been assigned to certain sectors within the engineering construction industry. The ECITB has actively facilitated the industry-led Connected Competence initiative which aims to recognise the generic skills transfer which will support a resilient, transferable workforce and support the energy transition.

Connected Competence was designed in collaboration with major contractors, who together employ more than 75% of the site-based craft and technician workforce in the UK Continental Shelf upstream oil and gas industry. This demonstrates a clear commitment to improving safety, as well as increasing the mobility and transferability of a safe, skilled, and productive workforce.

This initiative standardises and assures base-level technical competence using ECITB developed technical tests and site-based assessment based on National Occupational Standards. This prevents unnecessary retraining and in turn facilitates the movement of workers in the supply chain between key energy transition projects where their skills are equally applicable and are in demand.

Technical tests include knowledge questions applicable to specific test activity before a practical exercise is undertaken. These tests are taken at a ECITB test centre and once completed, Connected Competence is valid for 3 – 4 years, depending on the specialist trade. At the end of this period, the test is renewed by workers refreshing their technical competence. Workers manage their own competence as recognition of their competence moves with them between jobs and sectors.

The scheme was formally adopted as an industry-wide framework in 2021 and is now mandated by major service companies. In 2022, the ECITB delivered 4,502 technical tests as part of Connected Competence. Plans are in development to roll out Connected Competence into England and Wales and include workers from sectors other than oil and gas.

In February 2023 the Connected Competence Client Charter was launched at the Offshore Energies UK Operator Council. This is a significant milestone, with the Charter securing commitment from 12 asset and site owners to endorse a standardised approach to competence assurance through their supply chain partners.

An industry wide approach

The challenge of how to police competency would clearly benefit from shared learning and thought evolution between the two ITBs, end clients and employers to explore a viable, at scale means of recording and then leveraging through either regulation or client procurement led mandates, the enforcement of minimum workforce standards across the sector. It has been noted in evidence that this should avoid individual end clients

introducing their own bespoke amendments so the initial agreement of competency requirements that are being recorded will be key.

It is noted that in construction, movement has started towards cards representing broader evidence of occupational qualifications and competency. The CSCS scheme has started with the decision to withdraw its Industry Accreditation (IA) scheme at the end of 2024 (effectively 'grandfather rights' for time served or employer endorsed operatives without qualifications) This transition is likely to be difficult, affecting circa 60,000 existing workers, but is considered by the review to be a necessary journey to start applying a filter across the wider workforce to ensure it is capable to deliver better outcomes in the future. It is important that the qualifications set out as the minimum requirements for IA card conversion are not dumbed down for expediency and are the beginnings of a robust approach to raising average worker competency, output quality and most probably industry productivity.

Despite the current focus on construction product standards and certification, not just in UK related to Building Safety, but also in the wider European arena driven by the EU Green Deal, it seems strange that the evolution of a 'digital product passport', is not being complemented with a 'digital competence passport'.

Policing through technology

Current Building Regulations require provision of photographic evidence of installation to address certain performance gap issues[113]. This review has also noted the recent use by the insurance underwriting market of a requirement for workers involved in cladding remediation to wear body cams[114]. This is seen as the beginning of a likely much wider trend towards digital assurance of outcomes through installation monitoring. Combined with the advent of AI based visual recognition tools, this trend will only increase pressure on worker competency as poor workmanship or management will increasingly be exposed and have insurance implications for businesses and projects.

Professional competency

The validation of HEFE courses that count towards initial professional qualification achievement requires a refresh. Alongside this, the ability to achieve and maintain a professional qualification and evidence true competence to perform a senior role in the industry needs to more truly aligned to industry requirements. CPD needs to potentially

[113] https://www.nhbc.co.uk/builders/products-and-services/techzone/technical-updates/photographic-evidence-in-appendix-b-of-approved-document-l-volume-1-dwellings

[114] https://www.axa.co.uk/newsroom/media-relations/2023/axa-uk-provides-body-cameras-to-record-essential-safety-work-to-buildings-with-dangerous-cladding/

become less about self-certification and more about formal training and testing. This approach is required beyond building safety regulatory compliance.

Creating consequences and barriers to entry

This review recognises the sensitivity and indeed practical challenges of moving towards much stronger worker competence standards and digital passporting. Indeed, in many ways it is aligning towards the long-standing industry debate regarding licensing and the work of the Federation of Master Builders and License UK Construction.

It is worthy of note that in Australia, the New South Wales State Government has been building a legislative framework for construction ultimately linked to quality of outputs, using the threat of prevention of development certification to try and encourage improved standards and professionalism extending beyond just fire and structural safety. Through the new office of the Building Commission the ability to inspect and serve stop notices, and withhold occupation certificates, is now being ramped up for certain residential building classes[115]. This in turn is being delivered parallel to the encouragement of a private sector warranty and ratings market linked to this regime better informing end customers of developer reputation and assurance and in turn acting as an incentive to improve further quality via employing workers of the right competence all as part of a whole ecosystem approach[116]. It is noted however that this approach is not complemented with a ITB equivalent model to support the competency uplift through training and its funding.

Strategic impact

The review notes that the introduction of a cohesive, unified and preferably digital approach to workforce carding would also create a much better platform which strategic workforce planning tools can coordinate with in terms of being able to identify and baseline existing competencies (not just conventional job roles or occupational standards) against current and future demand.

This review's wider conclusion is that a move towards minimum worker standards is not only an imperative driven by quality and customer satisfaction but is also at the heart of safeguarding the industry's future in terms of improved capacity through productivity, efficiency, and effectiveness.

[115] https://www.nsw.gov.au/housing-and-construction/building-commission

[116] https://www.icirt.com/

5.9 Leveraging external enablers

Public procurement for workforce improvement

A theme identified during evidence gathering is the missed opportunity presented by public procurement to drive improved skills and training outcomes. This is reflective on a wider basis of the importance of the role of end client leadership in workforce development. This client linkage to the supply chain appears to be deeper in engineering construction where the links between investors and paying clients and the levy payers is often more transparent and strategic, especially in major portfolios or programmes of work.

In construction the public procurement opportunity includes social and economic infrastructure investment and related major projects or programmes where there is an ability to use contract requirements as a tool to drive more impactful human capital outcomes. Although there are attempts to do this through qualitative criteria in weighted tenders, mostly linked to local training or new apprentices employed, it is unclear whether the full potential to drive wider skills and training legacies beyond the project or programme in question and beyond new entrants, is being realised. It is also debatable whether the principles of such documents as the Construction Playbook are being used in practice by commissioning clients.

As referenced earlier, the IPA has recognised the importance of productivity as a key change driver for its government programmes as part of *Transforming Infrastructure Performance*. This is currently primarily manifesting through leadership training in its own teams but there is a question as to whether there is an ultimate intention to mandate through procurement wider workforce outcomes beyond current IPA metrics.

There is a huge opportunity through public projects and programmes from central government, local authorities and even housing associations to drive this as a condition of access to publicly funded capital projects. Importantly, this needs to be more than a notional ‘tick box’ pre-qualification requirement and should be a verifiable metric based on hard evidence provided during and through to completion of a project or programme on wider workforce outcomes.

Driving certainty and counter cyclical demand smoothing

The most impact which government construction spend can have on workforce outcomes is via the timing and level of commitment to its capital project pipeline. The reality is that the National Infrastructure & Construction Pipeline has not historically reflected the reality of live construction work injected into the industry. A combination of political, delivery, viability and procurement related delays, modifications or cancellations means that this document is of limited use to the industry in planning its future activity and in terms of investment in people. There is a need for much more robustness in public works

planning, commitment and real time updating to ensure industry is ahead of the curve in terms of its preparations to deliver.

To avoid the hollowing out problem the industry suffers from, government should be using its public works programmes and major projects more strategically to act as a counter-cyclical tool ensuring as much of the workforce as possible can be retained in a downturn through a pivot to public works.

Re-educating procurers

The impending Procurement Act, currently going through parliamentary process will be an important test of implementation compliance and it is rightly recognised by government that as part of its roll out a full learning and development programme for public procurers will need to be undertaken to drive the right behaviours beyond selecting the lowest price. This has currently not been seen in the operationalising of the Construction Playbook by government departments. The principles discussed should also form part of how public sector construction procurement frameworks look to enforce better whole workforce outcomes and social value as discussed in 'Constructing The Gold Standard'[117].

Town planning obligations

This review has also considered evidence that the current use of apprenticeship requirements in planning obligations under the Town and Country Planning Act are not always effective in tracking outcomes and that there is an ongoing risk of 'post-code apprentices' being created without more joined up thinking about regional long term sustainable employment continuity.

There is potential for supplementary guidance to the new National Policy Planning Framework to be issued by the Department for Levelling Up, Housing and Communities to guide and actively promote that a more expansive approach to workforce development should be adopted by local planning authorities spanning both the training of new workers and the upskilling and competency validation of existing workers.

Intelligent planning obligations can be a hugely powerful tool in driving such better and more workforce outcomes without the need for other burdensome regulations.

117 https://assets.publishing.service.gov.uk/media/61b9cb41e90e07043e8ff5cc/Constructing_The_Gold_Standard_Final.pdf

5.10 Revisiting ITB mandated scope

Scope currency challenges

The historic legacy of scope not keeping up with new technologies and industry evolution has been noted as has the potential for the ITBs to be sub-optimal in their priority setting and programmes of activity. In engineering construction this impacts areas such as Hydrogen and Carbon Capture Utilisation & Storage.

In construction, challenges are mostly related to previous scope reductions taking large parts of the industry out of mandate and challenging how a fully joined up approach to construction workforce planning and development can span building and engineering services. Historic CITB scope order reductions have meant that much of the important building related mechanical, electrotechnical and plumbing sectors are not now in CITB scope so the crucial interlinked skills challenge of improved building fabric performance and installation of new technologies for renewable energy, heating and building operations are divorced, spanning the line between in and out of scope. This is undeniably a major potential blocker in the pursuit of a holistic whole of industry workforce development approach to both retrofit and net zero carbon future homes.

The current ITB legislated scope also focuses primarily on site-based construction and related site based professional services but inherently this creates an artificial barrier between some wider related built environment and engineering professions, especially designers and other consultants who dictate so much of what ultimately happens on site in early decision making.

There has been recent debate, echoed by Make Modular UK as to whether CITB levy should routinely include the offsite sector where some Category 1 ‘volumetric’ modular providers have found themselves perhaps accidentally in levy scope where they have elected to offer turnkey site construction solutions but then have trouble in finding opportunities to draw down grant[118] [119]. There is a separate issue here, broader than just the modular sector, regarding whether levy should apply to just the in scope site based construction part of an employer’s wider total workforce.

In offsite manufacturing, those manufacturers carrying out site construction being caught by the CITB levy have struggled to align their generic skills standards and are largely doing their own bespoke training, albeit efforts are now being applied on trying to align

[118] https://www.gov.uk/government/publications/modern-methods-of-construction-working-group-developing-a-definition-framework

[119] https://www.makeuk.org/insights/reports/who-will-be-the-builders-modulars-role-in-solving-the-housing-labour-crisis

this through manufacturer collaboration[120]. It is therefore suggested that true offsite manufacturing continues to be out of CITB's occupational standard and funding scope and left in the hands of the appropriate manufacturing companies to evolve with IfATE. It would not be value for money to support the evolution of standards and training which were bespoke to even a small group of modular manufacturers as this will not enable industry job mobility and flexibility.

There is however an important need, as already discussed earlier, for site operation competencies and provision to respond to the site-based implications of using the multiple defined categories of MMC. In some more isolated instances, there may well be a need for new occupational standards and associated qualifications. A good recent example is the level 2 Construction Assembly & Installation Operative[121].

In engineering construction, there is also a growing blurring of the lines in both construction and process engineering construction between final workface onsite based construction and the materials and products supply chain feeding it as the gradual adoption of more pre-manufacturing and modularisation with more consolidated components beyond traditional raw materials creates different site skill needs with different technical detailing and interfaces and disperses the workforce geographically. Pre-fabrication of modules and assemblies is mostly using traditional and transferable skills like steel fabrication and welding etc, there is potentially more of a case for ensuring this remote value chain is in scope, especially as the competency question is the same whether such activities are carried out on, near or completely off site.

There is also a potential need to review the restriction of ECITB scope to UK territory and its waters, especially regarding offshore activities around the UK.

ECITB has also highlighted some scope confusion related to underground pipelines and power transmission cables which seem to be in CITB scope based on scope order interpretation. The future operational model being proposed in this review is an opportunity to better resolve these issues within a more integrated setting.

A cautious reconsideration

Despite the observations noted above, the review has heard from multiple sources that it would be very difficult, especially in the construction sector, to seek agreement through consultation to the idea of bringing current out of scope industries peripheral to current scope either into scope for the first time or back into ITB oversight where they have previously left. This process risks becoming a possible distraction in a much wider

[120] https://www.offsitealliance.org/skills-and-competancies

[121] https://www.instituteforapprenticeships.org/apprenticeship-standards/construction-assembly-and-installation-operative-v1-0

modernisation process being proposed in this review with much at stake. It is also relevant that there are clear exemplars in some out-of-scope sectors such as electrotechnical that the CITB has struggled to match in terms of standards evolution or training provision so the argument for subsuming others into scope could be resisted heavily in those areas where workforce development is advancing apparently without the need for CITB[122].

In the future, and dependent on the success of pursuing the wider recommendations of this review. there could be an opportunity for reconsideration of whether to consult with the various current out of scope elements of the market based on a better emerging benefits case of being in scope but now is not felt to be that time.

In the engineering construction sector, there are potentially more significant client side rather than employer levy payer barriers to bringing into scope certain new sectors. The cost plus and target cost contractual and commercial principles which the engineering construction industry uses means that there is a greater likelihood that the cost of a levy gets passed on transparently to the end paying client rather than absorbed somewhere in the supply chain, as often happens in construction lump sum pricing. The key challenge will therefore be to educate the end clients in potential sectors proposed to come into scope that the nominal extra cost of the levy on the cost of capital project delivery has a better outcome on their projects in terms of quality or even physical ability to deliver.

Finally, a suggested revisit to the current levy rules and regulations relates to the situation that has been raised a few times in evidence of where an employer undertakes activities both in and out of scope but is liable for levy on full workforce. Examples include the offsite manufacture sector mentioned above but have also been referenced in relation to the finishes sector where hard and soft floor coverings are in and out of scope for instance. There is some sympathy as to where an employer who does a significant amount of out-of-scope work is paying levy on his whole payroll without being able to access any training support and funding for those workers who are out of scope. It is suggested this is looked at in the context of fairness but needs to carefully consider the ease of policing and administering any such change.

5.11 Defining the right role for a future ITB model in a new ‘fit for purpose’ ecosystem

There is a clear recognition from the review that for any future ITB model to operate effectively, not only does it need to be strategically reprioritised (as set out in section 5.4), but it also needs to have much improved role clarity in the context of the wider ecosystem

[122] Coronation 2023: 6 green apprenticeships and how to apply - The Education Hub (blog.gov.uk)

within which it operates. This review has considered this in the context of the following external organisation interface points.

5.11.1 DfE & Central Government interface

Overall relationships between the Departmental sponsor team and the ITBs are largely positive and there is evidence of regular interaction and engagement. The sponsor team is small with the full time equivalent of 3.2 people with 2.5 FTEs in role at the time of writing this review. Given the amount of legislative work needed to facilitate compliance with the Industrial Training Act, it may require additional or more senior resource. In addition, since the machinery of government changes in 2016, the senior sponsor role for the ITBs within DfE has changed five times. That is a challenging amount of change for both the sponsor team and the ITBs and there is evidence that lack of continuity has impacted the depth of understanding on some historic issues and ensuring governance and accountability is managed consistently.

This review has made the point that the industry's drawdown of apprenticeship levy needs to be optimised to make the most of ITB levy. This will require a new body to play a role, with DfE support, in assisting more companies, especially smaller ones, to access available apprenticeship levy funds for appropriate training via apprenticeship service accounts. This should be redistributive and consider the principle of prioritising levy access based on strategic industry training priorities rather than individual employer requests.

As set out in section 6.3, the ITB levy is a hypothecated tax and ITBs are classified accordingly as a central government body. They need to ensure they are complying with all requirements of being an ALB, including financial controls. The ITBs and the department need to agree a Framework Document as soon as possible as this has been missing until now. In addition, the department must impose a Delegated Authority Letter, which has also been missing, as soon as possible and ensure that spend controls are applied.

The government's strategic priorities for the ITBs are set out in the ministerial priorities letter in quite high-level and general terms. That makes it difficult for the ITBs to evidence their delivery against those priorities and for the department to provide sufficient oversight and scrutiny of performance.

Quarterly strategic performance review meetings are held between the sponsor team and the ITBs to discuss strategy, performance, and risk. However, sign off of an agreed Framework Document needs to be resolved to share clear understanding on how the ITBs can be held accountable, and performance assessed more effectively.

5.11.2 Devolved Administration interfaces

The review has heard multiple viewpoints about the misalignment between the skills systems in England and Scotland and in turn, particularly from a CITB perspective, issues in relation to duplication of effort, a history of vying for position and influence and ultimately some concerns that the net effect of CITB effort was less in Scotland and that priorities were sometimes at odds with local need due to the different funding regime, standards and training provision infrastructure.

It is also recognised that the recent Scottish Government instigated review of the devolved post-16 skills delivery system may well have downstream impact which both ITBs need to recognise[123]. Some of what is set out in that review might conflict with the suggestions of this ITB review, especially in terms of the proposal to increase autonomy and devolution and create a truly regional skills system for Scotland and Wales. This might further challenge alignment to a more national model where appropriate for construction to create uniformity on standards. However, many other recommendations appear to be aligned to the findings of this review.

It is evident that both ITBs recognise their Great Britain wide requirements and are clearly delivering interventions/functions in the Devolved Administrations as well as England. Evidence shows that CITB, using NOS, is active in trying to support apprenticeship students in the Devolved Administrations and that is indeed valued by stakeholders.

This review believes that there is the opportunity for the ITBs to engage further with officials and ministers in the Devolved Administrations. The review encourages them in whatever future form they take to maximise that opportunity to help the alignment of skills strategy.

It is noted that most of the interaction between the DfE sponsor team and the Devolved Administrations is that which is required as part of the legislative process. However, both the sponsor team and the Devolved Administrations would benefit from a broader, more frequent interaction to share understanding of the opportunities for, and impact of, ITB delivery across Great Britain. As a result, it is recommended that officials undertake more frequent engagement in the future.

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[123] https://www.gov.scot/publications/fit-future-developing-post-school-learning-system-fuel-economic-transformation/

5.11.3 IfATE interface

The historical changes to the standards regime described in section 5.6.1, have created some strategic overlaps that are yet to be fully resolved. Addressing this is critical to ensuring an efficient and effective skills system in England as well as the Devolved Administrations. While the ITBs and IfATE work collaboratively on an operational basis, there appears to be a lack of clarity on responsibilities that can lead to duplication of effort and strategic conflict. DfE needs to work with both ITBs, IfATE and the Devolved Administrations to oversee strategic thinking to agree the ownership and delivery model for skills and competency in both sectors.

IfATE is responsible for the regulation and approval of technical education in England[124]. In addition, it can provide advice on technical education outside of England. This provides an opportunity to ensure that skills pathways are consistent and coherent within an overarching IfATE infrastructure, while enabling specific, bespoke pathways to address sector or subsector needs.

As described in section 5.6.6, the work of the CLC competency workstream is a good example of this. The development of measurable skills, experience, knowledge, and behavioural standards within a competency statement standard helps to expand and embed NOS and occupational standards as well as expand and enrich the requirements for an industry agreed concept of competency.

It has also been noted in evidence that ECITB is currently operating specific initiatives with potential to be embedded in the IfATE infrastructure. A particular example is the work done to standardise a measurable level of welding at Hinkley Point C.

Being able to extend these types of effort at scale, and across the sector should now be the ambition. This should also include aligning competency in the sector across England and the Devolved Administrations. There is clearly an important and central role which IfATE can play in any future landscape to coordinate standards not just in England but to have wider influence in aligning standards across Great Britain.

5.11.4 CLC interface

There appears to be both latent synergy as well as potential for conflict and duplication of effort when analysing the relationship and activities of CLC and CITB. Although it is clear CLC's People & Skills workstream seeks to represent the wider construction and built environment sector and CITB is only mandated to serve part of that within its scope, it seems that current arrangements could be hugely improved.

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[124] IfATE Framework Document (publishing.service.gov.uk)

Bearing in mind the seriousness of construction's plight when it comes to its future workforce projections and the looming building safety competency challenge it seems notable that CITB's leadership and positioning in the whole people and training debate is not where it should be. There should be much more strategic thinking, implementation, where appropriate, leadership, planning, funding and resources being applied as part of a war room approach to addressing challenges.

Presently, some resources are being deployed, primarily in a supportive secretariat support role, and indeed a competency programme has been initiated by CITB. The latter however seems to already be at risk of CITB effort now conflicting with some work being done by CLC and it is important that this does not become about jostling for position. Agreement needs to be reached between a repurposed and focused new body, CLC, DfE, IfATE and relevant out of scope trade bodies as to how a holistic approach to solving the problems facing the industry discussed in this review can best be formulated.

There is ultimately an urgent need for joint leadership and alignment on a coherent and coordinated workforce plan and development strategy addressing all the various themes referenced in this review. The need to take industry on a difficult journey ahead needs collaboration. Although both CLC and CITB have their detractors for differing reasons, there is a need to speak with one voice in relation to securing the workforce outcomes the industry desperately requires.

This review also wants to recognise the role of the Scottish Construction Leadership Forum (CLF), and its draft Transformation Action Plan[125]. Although a Great Britain wide approach is needed to the high level issues addressed in this report and the action plan mirrors most of the key issues being addressed by CLC, there is the need for nuancing on a national scale and reflecting delegated administration and industry convening arrangements.

5.11.5 Building Safety Regulator / Industry Competence Committee interface

The review has been able to speak to the newly formed Industry Competence Committee (ICC) to seek clear views on expectations on competency validation and maintenance. There are justified concerns from ICC regarding current industry accreditation or competence schemes being assumed or deemed to be an appropriate level of competence to satisfy the Building Safety Act. Although it would be expedient to accept this argument, it is likely to be undermined by a lack of alignment between historical course content, qualifications and card schemes and resulting occupational competence.

[125] https://www.constructionforum.scot/

This is a difficult dilemma which might feel like inflicting short term self-harm but needs to be resolved if the industry is to truly benefit from longer term productivity and quality benefits of higher competency. It is also incumbent that the training provision, especially the trainers and assessors themselves, are recalibrated in evaluating skills, knowledge, experience, and behaviour, appropriately informed by external challenge and fresh perspective. It is expected that ICC will bring this.

It is also important that ICC, CITB and CLC are all quickly aligned on the competency roll out strategy starting to emerge to ensure it is not abortive or storing up downstream issues. Similarly, the new body, as part of a future ITB model needs to inject itself into this debate and play the most appropriate role relative to its emerging capabilities and ability to add value through its functions and levy/grant powers.

5.11.6 Nuclear Decommissioning Authority

Some reference was made during evidence gathering of potential duplication of effort between ECITB and other bodies in the nuclear sector, including Nuclear Decommissioning Authority, the new Nuclear Skills Taskforce[126] and the Nuclear Skills Strategy Group[127]. It is recognised that this is a very specific part of the engineering construction sector, but it appears there is a confluence of groups, interests and possibly activity which risks wasted effort or lack of aligned outcomes.

It is suggested that improved clarity is created through clear alignment between all parties involved, supported by government departments as necessary.

5.11.7 CSDG interface

The Construction Skills Delivery Group is a legacy of Project Speed to catalyse post pandemic recovery through infrastructure spending. It represents an interface point into government and along with the ministerial annual priorities letter provides direction[128] [129] and on changes in government priorities. This includes linkage to the Infrastructure and Projects Authority and major government projects and programmes.

[126] https://www.gov.uk/government/news/new-taskforce-to-build-uk-nuclear-skills

[127] https://www.nssguk.com/

[128] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1115605/CITB_Priorities_Letter_signed-_2023-24.pdf

[129] https://www.gov.uk/government/publications/ecitb-annual-priorities-letter-2023-to-2024

It is unclear to this review whether CITB are seen and act as an influential player in this arrangement or whether they are 'tail end Charlie' and not fully accountable for actioning what comes from CSDG discussions or indeed the annual priorities letters.

5.11.8 Devolved Mayoral Authority interfaces

The review has not found any particularly strong evidence of how CITB is strategically and proactively responding to the levelling up and wider devolution agenda and the increasing role of place-based strategies for local skills and training.

This is going to be further tested in the West Midlands and Greater Manchester where deeper devolution deals have been announced with greater flexibility and autonomy, including in post-16 education and skills. As an indicator of past impact in this area it is worth noting that evidence of significant ITB generated or supported value add outcomes in Greater London, which has had a greater level of devolved power in post-16 and adult education and is in some ways is at the heart of the UK's construction skills crisis, has not been found. It would be overly simplistic to solely blame CITB, but it raises the question of what is going to be needed to reduce the workforce and skills gaps in geographic areas of high construction workload which beyond major infrastructure projects will more than likely be correlated to our major cities.

From a ECITB perspective, evidence of the required level of coordination has been seen in Teesside as part of its Northern Competency Cluster where a Bootcamp format short course intervention was jointly supported by ECITB, DfE and Tees Valley Combined Authority[130].

5.12 Resetting the ITBs & managing change

Despite very mixed views on the efficacy of the ITBs, especially CITB, with some significant voices calling for its removal and others, particularly those closer to its current leadership, functions and delivery, wholeheartedly supporting it, the broader consensus is that the statutory mandate and the broad remit of the interventionist model should be retained but that a major repurposing of objectives and expected outcomes should be undertaken.

The recurring conclusion however is that things must change to drive the efficacy of the intervention at a scale which matches the industry's real needs and warrants the statutory apparatus which the ITBs operate under.

[130] https://www.ecitb.org.uk/blog/2023/08/02/northern-industry-collaboration-offers-innovative-approach-to-addressing-skills-gaps/

Previous reports and reviews have recommended changes, some significant, but none have resulted in the step change in improved workforce resiliency required. This is an issue which has now accumulated into a mission critical challenge of arresting workforce decline and ensuring the engineering construction and construction sectors have the quantum and capability of resource necessary to address the profile of demand that it will face now and in the future.

The upshot of the findings of this review are a number of significant proposed changes in both the operational form, but perhaps more importantly, the strategic priorities and reshaped role which the ITBs should have going forward to be most effective. It is not lost on the review team that the process of implementing such change will be a huge challenge which is more akin to a complete reset than a reform or improvement programme. The ability to deliver against the new priorities needs a mindset shift spanning leadership to implementation teams. In some instances, it will require new capability as well as challenging the relevance of certain current functions and resource. An underpinning theme must be efficiency of delivery and ‘bang for buck’ in the delivery of outcomes relative to levy funding and the operational cost of delivery of the strategy.

It is this review’s conclusion that an operational change to a single integrated body is required to enable all of this. This is subject to the appropriate consultation and procedural aspects of enabling this taking place and with an interim body managing the transition. The best of both ITBs need to be harnessed in a way that enables a route to bigger, quicker and more efficient impact. There are great things happening in both organisations that need to be scaled up, but also other things that need to be passed over to others or discontinued. That process of change needs a robust transition and integration plan and this should be an early deliverable if this review’s conclusions are to be acted upon.

It may seem like window dressing, but it also seems sensible for a new integrated organisation to be rebadged in terms of its title. The term ‘Industry Training Board’ is very much reflective of an input, but it is the outcome the industry needs, which must be about the broader aims of ‘workforce planning and development’ and ‘workforce resiliency’ spanning both new and existing workers. Training is a means to an end and this review has clearly pointed to this being a much broader objective than supporting the training of a relatively small number new apprentices entering the industry.

There will obviously be a nervousness from many quarters that instigating major change at a time when the industry is struggling with current day business, operational and regulatory challenges would be just another problem that the industry does not have the bandwidth to deal with. This points to the need for any change to have political support, preferably cross party in nature during an election year, and for a transition and integration plan to be agreed that ensures disruption is minimised, quick wins are identified, and priorities agreed. Government should be a key stakeholder in this, not just

industry, as it will need to ensure public interest is being served and that there is sufficient focus on strategic priorities.

This review has also pointed out the many externalities which impact the ITBs' roles and ultimately in some instances, their performance. The process of resetting and reestablishing a fit for purpose new body must involve close collaboration with those external parties, all as described in Section 5.11 above.

The distribution of roles, and who leads and who supports, should be based solely on who is the best athlete and route to maximising impact and speed of impact. There can be no room for 'turf wars' or power struggles in this process and ultimately pragmatism plus some arbitration from appropriate parties must see this over the line. At government department level, there is significant stakeholder interest. A number of departments (as well as the Devolved Administrations) need to see the reset of the ITBs delivered quickly and effectively. As a result, it would be helpful for DfE to convene and chair a steering group of the relevant departments and administrations to help oversee the transformation.

It is considered by this review that the fear of change and disruption is not a good enough excuse to not act now and in a much more fundamental way than has been considered before. This requires a managed process which has the right leadership and can navigate the very many blockers that are likely to present themselves. Urgent change is critical and DfE must ensure that it is satisfied with the progress in implementing it, or it should have immediate recourse to reconsidering the viability of the ITB model.

6. Detailed performance analysis of ITBs & recommendations

As required by government ALB review guidelines issued by The Cabinet Office, this review has undertaken a full ‘four quadrants’ review of both ITBs and assessed performance and/or compliance against this checklist. The quadrants are:

- efficacy
- efficiency
- governance
- accountability

6.1 Efficacy

It is recognised that most of the content in the preceding sections 4 and 5 has been focused on addressing efficacy. However, there are some important further procedural aspects that are highlighted below.

6.1.1 Theme 1: Functions of the ITBs

All ALBs must meet one of the government’s Three Tests:

Test One

Is this a technical function, which needs external expertise to deliver?

The 2015 ITB review concluded that this test was not met. This review agrees with that position. While a central government department might find it a challenge to take on the technical functions, it would appear to be technically feasible.

Test Two

Is this a function which needs to be, and be seen to be, delivered with political impartiality?

This review believes that this test is met. This was also the conclusion of the 2015 review, albeit for different reasons. In 2015, the review concluded that the operation of a statutory levy needed to be carried out at arm’s length from government. Perceptively, that review conceded that the upcoming introduction of the apprenticeship levy might render that argument null. Indeed, this review concludes exactly that premise. It is possible for a central government department to assess and collect a statutory levy. However, this review does believe that some of the functions recommended elsewhere in this report do need to be seen to be delivered with political impartiality. For example, both the development of a digital real-time strategic workforce planning and jobs brokerage

platform, and talent attraction activity should be seen to be done by industry and for industry. As a result, this review concludes that ITB functions meet test two's requirements.

This position does not conflict with the recommendation in section 5.3 that the ITBs need to be more accountable to government. As explained in section 6.3.1, the ITB levy is classified as a public fund and so Parliament must have oversight of expenditure to ensure their spend is value for money and achieving the desired impact.

Test Three

Is this a function that needs to be delivered independently of ministers to establish facts and/or figures with integrity?

This review agrees with the 2015 ITB review. It is not necessary that job forecasts and modelling is done independent of government to establish credibility.

6.1.2 Theme 2: Form

Abolish

The review has heard strong arguments for and against the retention of a central intervention on skills for both these industries. This review has considered both sides and proposed retention but subject to a transformative vision and reset to improve competency and hence productivity and capacity in both sectors. We believe there is an ITB role in a new form in helping deliver that and as a result, this review does not recommend abolishing the ITB model.

Move out of central government

In principle, the ITBs could be wound up and their function transferred out of central government, on a voluntary basis. This was the rationale for the wind up of the Film Industry Training Board in 2021. There are significant cost benefits to such an approach. Both ITBs as well as DfE have dedicated teams for delivery functions required by ALB status. In addition, the statutory nature of the ITBs requires the maintenance of a legislative programme that requires Ministerial and Parliamentary time. This change could be delivered by means of secondary legislation to wind-up both ITBs with the Secretary of State for Education transferring ITB assets to the new voluntary organisation that they would transform into.

However, the review has heard views from stakeholders and both ITBs that removing the statutory basis of the levy would threaten the viability of the funding stream. It is felt that insufficient employers would pay a voluntary levy. This review is concerned that the ITBs would no longer be financially viable if the levy became voluntary and the investment would be lost.

It is the opinion of this review that this risk outweighs the benefits of moving the ITBs out of central government and, therefore, this option is not recommended.

Commercial models

Commercial activities of the ITBs are well established. There may be scope to increase that in the future and that might help the ITBs utilise a greater proportion of levy funds directly into skills support. However, while we recommend that the ITBs explore options to increase commercial functions, we do not believe there is enough of a commercial market to make this a financially viable model to fully fund ITB activities without a levy.

To operate an ITB model through a procured contract appears difficult. Under HMT rules the levy receipts would likely need to pass through central government. The apprenticeship levy demonstrates that this can be done in principle. However, this would require significant legislative change to bring it about. In addition, it is unlikely that a single private sector organisation is currently capable of delivering the full range of future ITB model functions proposed in this paper. As a result, a procurement model would possibly require several private organisations to be contracted to deliver different functions. That approach creates challenges for central government in aligning the delivery and may well be less efficient than the ITB model.

This review recommends that the ITBs explore opportunities to grow commercial activities. The review does not recommend that DfE seeks to procure ITB functions from the private sector other than to engage specialist media and communications capability in relation to its current assumed attraction function and perhaps the accessing of out of sector workforce development specialists. This should be led by industry but potentially have access to ITB levy funds.

Bring in-house

The review does not recommend this option. As is argued above, Test Two is met, there is a need for ITB functions to be seen to be delivered with political impartiality. As a result, it would not be appropriate to bring those functions into a central government department.

Merger

The transformation of ITB focus and functional activity described in this review suggests very real potential benefits for merger and is hence a core recommendation. The case has been made that the core issues that need to be addressed are largely common to both sectors. The future strategic functions for both sectors could therefore be identical, albeit requiring nuance in delivery to maximise the benefits for each sector and the sub-sectors within them. A merger, alongside the suggested refocus of activity, should offer efficiency savings in the ITBs themselves and this is worth pursuing. It would also offer efficiency savings to DfE as less legislation is then required for scope and to establish the levy.

Consideration will be needed as to whether a single ITB would still operate differential levy mechanisms in each industry. There is a strong logic for an onsite and offsite model in engineering construction and a contract and direct employment model in the construction industry. An appropriate future levy model would need to be considered as well as the status of any remaining ITB levy power within the current legislation.

This review recommends that DfE explores the different options to merge the ITBs as soon as possible in line with the broader recommendations of this review. As stated in section 5.5 as an immediate priority, both ITBs need to formulate an integration plan with a day one objective of converging on a single shared strategy and operating an interim body leadership board.

Less formal structure

The review believes that a less formal structure would not be appropriate for the ITBs. As discussed elsewhere, the ITB levy is a tax and a formal structure to the ITBs ensures that Parliament has the appropriate oversight and scrutiny of the public money spend.

6.1.3 Theme 3: Outcomes for citizens

Although both ITBs are outside of the scope of the Public Sector Equality Duty, both ITBs show appropriate focus on equality. The CITB has published its equality policy on its website[131] and ECITB's website publicising the work it is doing on equality[132].

Both ITBs show good engagement with their stakeholders. This is a more difficult task for CITB given the size and structure of the construction industry. While the review has heard of specific instances where engagement has not been effective, overall, both ITBs show they make active attempts to get this right.

The ALB has a responsibility to ensure any campaigns are aligned to government priorities and consideration should be given to joining up messages across ALBs and departments to ensure the government speaks with one voice (whilst recognising independence).

[131] citb_strategicequalityplan_english_final.pdf

[132] Diversity & Inclusion - ECITB

Both ITBs have an established complaints policy and process, which are published on their websites[133] [134]. This also have published information on how the public can make a Freedom of Information Request[135] [136].

As explored in more detail in the efficiency section, both ITBs have developed numerous digital services to facilitate improved customer interaction. In addition, both ITBs have published accessibility statements on their websites[137] [138].

Due to a limited London presence, the UK Government's Places for Growth strategy is not wholly applicable to the ITBs. That said, CITB does engage with Places for Growth and has played a part in regional discussions and planning. A recent example of this was the renewed leasing of their Head Office in Peterborough.

The ITBs' remits and responsibilities are Great Britain wide. As described in more detail in the governance section, both ITBs engage with the Devolved Administrations and employers in Scotland and Wales to support skills needs for the sectors in those nations too.

6.1.4 Theme 4: Performance

Performance Measures

CITB:

The CITB's published performance measures have undergone change over recent years which makes it difficult for industry and government to understand if they are being successful. The latest KPIs are mainly focused on transactions or outputs, such as the number of people accessing career support or the number of taster opportunities available, rather than measuring the end impact or value added. The review team considers it would be beneficial for KPIs to measure direct induced cause and effect as part of the accountability and governance for the new body. It is recognised that this might be difficult but consideration of more appropriate measurement techniques and metrics should be made with fairness and balance to compensate for matters outside of a new body's control.

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[133] Complaints policy - CITB
[134] Complaints Policy and Procedures - ECITB
[135] Freedom of information - CITB
[136] Contact Us - ECITB
[137] Accessibility Statement - CITB
[138] Accessibility Statement - ECITB

Stakeholders interviewed by the review team think that previous CITB strategies have not been aligned to maximum industry impact and, as a result, industry does not find sufficient value in the support CITB provides.

The CITB's Employer Survey Report provides a twice-yearly view on corporate performance and is a key input to board KPIs. In April 2023, 46% of employers surveyed were satisfied with the overall service CITB provides for industry. Of the employers surveyed who had dealt with CITB, 48% were satisfied with the service provided to their company.

The CITB uses theories of change and logic models to evaluate its interventions. The review has seen positive examples of evaluation reports in respect of specific projects and recurring business as usual activity. The evaluation reports we have seen focus on the experience of the learner and employer but do not appear to provide evidence of the impact CITB has had in terms of skills acquisition and/or net end benefit to industry.

ECITB:

The ECITB's strategic KPIs are developed as part of the strategy consultation process with industry. Management KPIs are developed with the board and ECITB Council. Individual project KPIs are set as part of the project governance process and are signed off by the appropriate internal steering groups. KPIs are reviewed frequently (in the case of the strategy KPIs annually) to ensure they remain fit for purpose.

The ECITB's KPIs appear to have remained consistent and focus primarily on customer satisfaction. The ECITB is committed to continuously improving its performance and measures perceptions from key stakeholders through its Customer Satisfaction Survey (CSS). As with CITB, some of the KPIs feel transactional but the review recognises that customer satisfaction can be a useful proxy of impact where performance is difficult to measure.

The review has heard positive views of ECITB's performance from both industry and government. Stakeholders consider ECITB's strategy to be aligned to maximum industry impact and consider the organisation to add value. In the 2021 CSS (the latest available), 88% of respondents were satisfied with the quality, accessibility and affordability of training and assessment provided by ECITB. Employers felt that ECITB provides most strategic value in terms of ensuring smaller companies can access training (80% agreed overall). Importantly though, and in the context of the strategic findings of this review, this feedback does not necessarily translate into markedly improved industry resiliency and capacity. It is recognised that the findings and recommendations of this review appear to challenge what a large proportion of the engineering construction industry feel is a worthwhile contribution from ECITB. The reality is that the findings are based on a strategic critique of bottom line impact and more importantly a future prognosis for the workforce. It is not clear that employer feedback is necessarily reflecting the reality of these important issues.

In terms of evaluating programmes and interventions, then the ECITB's new entrant programmes are assessed based on completion rates and grant rates are reviewed every 6 - 12 months to ascertain their viability/affordability in relation to market rates. The ECITB acknowledges that until now evaluations, including an independent evaluation by the Centre for Economics and Business Research into the Train to Retain Programme, have been conducted on an ad-hoc basis. The review has been informed that ECITB intends to strengthen the evaluation requirements for individual projects in line with a new approach to project governance.

Both ITBs have provided the review with encouraging examples of completed lessons learned exercises and have explained how learning from these exercises has been embedded into activity and used to inform future strategies. However, we would like to see further evidence of how evaluation and lessons learned are used more systematically particularly in developing the overall organisational strategy and business planning.

Greening and Net Zero Commitments

Both ITBs' Annual Report and Accounts include sustainability sections that reference actions they are taking to reduce their impacts on the environment. The CITB Annual Report and Accounts explicitly states that the organisation is committed to meeting Greening Government Commitments (GGC) and has integrated reporting into this document rather than producing a standalone report.

Both ITBs are fully supportive of government's commitment to net zero as the transition to net zero carbon emissions is critical to the construction and engineering construction industries. This is reflected in the ITBs' strategies and business plans. The CITB and ECITB are involved with cross-government groups, including the Green Jobs Delivery Group, and are working with DfE in the development of the Net Zero Response Fund.

Risks and performance management

Risk profiling management is good and compliant for both the ALB and the sponsor department. Recommendations from previous reviews are captured, actioned, and tracked well by both the ALB and the sponsor department.

All ALBs should have a framework document in place that sets out arrangements for departments to monitor and understand their ALB's strategy, performance, and delivery. Framework documents between sponsor departments and their ALBs are a requirement of Managing Public Money.

Finalising an agreed Framework Document has taken an extended period of time to conclude, with protracted negotiations by the ITBs given their somewhat unusual status. The ITBs and Department should exercise a more pragmatic approach and expedite the agreement of Framework Documents with Cabinet Office and HM Treasury at pace.

The sponsor team hold quarterly strategic performance review meetings with the ITBs which provide a regular opportunity to discuss ITB performance and for DfE to share policy news where there could be potential cross over with the role of the ITBs. This provides DfE with assurances that the ITB is delivering against DfE priorities as set out in the minister's annual priorities letter, and that performance is, and risks are, being managed appropriately.

Maintaining the core levy grant system

The overall feeling of this review is that the ITBs are currently endeavouring to resolve a market failure in employer propensity to invest in workforce development. For a retained but transformed body to deliver a refreshed agenda, it is felt that a statutory levy grant system should be retained. The review heard contrasting views on the need for a levy and indeed the effectiveness of the grant system for both ITBs. There was a theme that the levy has become rationalised as a 'tax' on the industry' for long term and wider benefit and the industry redistribution ring fencing is appreciated. The recommendations of this review will test whether that is a reality as they require a further redistributive grant allocation profile to maximise wider impact.

An overwhelming element of feedback related to the lack of penetration to the lowest levels of the supply chain where impact is required. It is not considered sufficient to have a grant funded proposition of support and hope that industry will take it up. There is a need for a much more pro-active injection of funds and concerted outreach campaign into industry which requires a rethink of the communication and industry liaison channels currently being used, especially in the complex and fragmented construction industry. This also needs to measure outcomes, not just money spent or the intervention headcount.

A key challenge is to ensure any statutory levy is justified by an underpinning public interest and a transparent benefits case for how the levy is making a tangible difference. This review is happy that the first test on public interest is met but it is less clear that the second test on making a difference is currently being met.

6.2 Efficiency

6.2.1 Theme 1: Financial management

Financial Processes

Both ITBs' CEOs have been formally appointed as Accounting Officers by the Principal Accounting Officer of DfE (the Permanent Secretary). As set out in section 6.3, the review team has not seen sufficient evidence of CITB and ECITB consistently applying the spend controls, and this must be rectified.

As registered charities, the ITBs must comply with the recommendations and requirements of the Charities Statement of Recommended Practice in preparing their Annual Report and Accounts. Both ITBs' annual accounts are audited by the National Audit Office and, in line with the ITB founding legislation, laid before Parliament after certification by the Comptroller and Auditor General and subsequently published on GOV.UK. The review team has reviewed the latest published Annual Report and Accounts for CITB (April 2021/March 22 financial year) and ECITB (January – December 2022 financial year).

The review has seen evidence of CITB's and ECITB's internal financial management processes. The department and the ITB's audit and risk committees and auditing agencies should continue to scrutinise the more detailed evidence that demonstrates how they meet the financial management related functional standards and the suite of management standards.

Financial Reserves

As registered charities, the ITBs are required to maintain a financial reserve to provide confidence of proper financial management and resilience. The ITBs' boards are responsible for setting the level of reserves to reflect the specific circumstances of their organisations. For CITB, the minimum level of reserves is £40m whilst CITB currently holds £109m. The ECITB's minimum reserves is £6.5m whilst current reserves are £11.9m.

Financial Decision-Making

CITB:

The CITB's Strategic Plan 2021 – 25, published in September 2020, was developed in conjunction with industry[139]. It sets out what CITB has identified are the key skills challenges for construction and how the organisation will address these, working with industry and governments. The plan is centred around the following three priorities:

1. Careers - Support for bringing people in to work in construction and retaining skilled workers by providing clear information on how to join and making it easier to do this by supporting practical work experience opportunities, both for new entrants and career changers. Also, by ensuring apprenticeship and further education (FE) routes work effectively.

2. Training and Development - Ensuring that the system of training and development works to enable employers to do the training they need to have a skilled workforce by helping companies to identify their training needs; by targeting funding at

[139] citb_strategic_plan_2021-25.pdf

employers' training priorities; and by identifying specific gaps and barriers to training in priority areas and taking action to address them.

3. Standards and Qualifications – Working with industry to understand how it is seeking to drive up performance and to define the competence required to achieve that. Working with employers to develop models of competence (knowledge, skills, and behaviours) to provide clarity on what is needed for existing and new skills, such as digital. By working with governments on skills policy and by continuing to support the setting of underlying standards, we will ensure that training is high quality and transferable.

As described in section 5.5, CITB is currently developing its 2024 – 28 Strategic Plan in consultation with industry stakeholders.

ECITB:

The ECITB's levy investment in each 3-year period is underpinned by its strategy, supported by an aligned business plan. The strategy is developed in consultation with in-scope employers, approved training providers, asset owners and government. It is designed to address the key priorities and pressures which the engineering construction skills supply chain is facing. The business plan sets out ECITB's main objectives and how it will deliver them, alongside associated performance metrics. The alignment is clear between ECITB's business plan and strategy for the period 2023-25 due to the consistent focus on the three strategic pillars: Foundations; Growing a Skilled Workforce; and Supporting Industry in Transition[140] [141].

Interactions with other organisations

Interactions with other organisations are covered elsewhere in this report. Clarification of the ITBs' role in the occupational standards space is covered in the efficacy assessment within section 6.1. From an efficiency perspective, clarifying the ITBs' roles and deconflicting the potential confusion and overlap in the skills system should help a future ITB model understand where it can add value and become more efficient.

6.2.2 Theme 2: Benchmarking cost

Benchmarking exercises

The 2017 ITB Review recommended that both ITBs should have success measures about organisational efficiency, including benchmarking their operations against comparable organisations. The review has not seen sufficiently clear evidence of

[140] ECITB Business Plan

[141] Strategy-Booklet-23-25-FA-web.pdf (ecitb.org.uk)

measures relating to organisational efficiency in either ITBs' published performance measures.

As the two remaining ITBs, the review recognises that there are no direct comparators for CITB and ECITB. The ITBs informed us that they do not work together to build common understanding regarding benchmarking due to significant difference in their scope, scale, and size. However, it is possible to undertake benchmarking against organisations that undertake similar activities to the ITBs on elements of spend. In addition, there are some international reference points in terms of specific training and workforce agencies for construction (as opposed to national, cross economy training organisations), including Singapore, various Australian states, and India. No one body directly replicates the ITB model however, including administering a sector levy grant system, so it is still difficult to draw like for like comparisons on headcount, operational spend, overhead etc due to the different functions they undertake.

CITB:

The review has seen insufficient evidence of CITB benchmarking against other organisations. We understand this is because CITB has not been able to find a comparable organisation(s) where there is data publicly available. The CITB has an internal benchmark it uses as a basis for monitoring the costs of running the business.

ECITB:

The ECITB undertakes benchmarking exercises of elements of spend. In 2022, ECITB benchmarked to the publicly reported overheads of SEMTA, EU Skills and Cogent and concluded that its overheads were low compared to equivalent organisations. The ECITB also undertakes benchmarking of salaries and annual bottom-up budgeting to challenge all costs. Every 6 - 12 months ECITB benchmarks its primary suite of training grants against the training market to ensure that rates meet current demand.

Transparency of levy spend

Industry and government are keen to understand the split of income (especially levy) spent directly on training and funds spent on running the ITBs. It is difficult to establish the ITBs' true running costs from published information such as business plans and the Annual Report and Accounts. This may be because the ITBs follow the Charities Statement of Recommended Practice which requires them to account for their different funding streams in a prescribed way.

CITB:

The CITB's operating expenditure in the 2021/22 financial year was £59m, including staff costs. In this period, CITB's total income, including non-levy sources, was £148.5m. The Annual Report and Accounts for this period states that this operating expenditure "is derived from management information rather than the Financial Statements due to the

allocation of costs required by the Charities' SORP (Charities Statement of Recommended Practice)". It is worth noting that the financial year 2021/22 was an exceptional year where CITB implemented reduced levy rates by 50% and therefore reduced levy income by 50% to support employers during the Covid pandemic. Inevitably the operating costs most of which are fixed in the short term, look high for this year. The review has heard negative perceptions from industry stakeholders regarding a lack of transparency of CITB's levy spend, although CITB has pointed out that a transparent level of detail is available at note 5 in their Annual Report and Accounts.

ECITB:

The total costs of delivering ECITB's services were £10.9m in the 2022 financial year, compared to total income of £28.7m. These delivery costs are comprised of direct and support costs, including apprentice allowances, recruitment and training and assessment costs (totalling approximately £2.5m).

Cost and efficiency of levy collection and grant processing

There is significant cost in simply collecting the ITB levies and in turn distributing training grants before any value add is generated.

CITB:

A significant number of CITB stakeholders, including Prescribed Organisations and individual levy payers, expressed the view that CITB's collection system is bureaucratic, not efficient or fit for purpose. In 2022/23, CITB's levy collection costs were £1.9m which equates to 1.1% of levy collected. In July 2021, a statement made by the CITB suggested '95p in every pound was being reinvested to support the industry and its workforce'. It is important to note however that this statement does not mean that 95p of every pound collected actually goes back directly to industry.

Furthermore, the levy cycle is currently about 34 months (base/financial year + data collection year + 10 months levy collection if paying in instalments). Stakeholders believed there to be a need for a modernised, automated system that relies on real-time data and payments.

The issue of the timing lag between levy returns and levy payment was referenced to the review as being a potential problem in terms of alignment to near term workload and ability to pay. This penalises SME businesses disproportionately and should be addressed as the reality of small businesses 'accruing' funds for future levy payments is debatable.

The CITB has recognised this issue and considered options to reduce the time lag in the levy system including moving to a real-time based model. In the first instance, the CITB is proposing to implement from 2026 an option that reduces the time lag by up to one year, referred to as 'Close the Gap'. The review has heard evidence that the issue of HMRC

alignment has been looked at before but has been discounted on grounds that it could be too difficult to execute. In the light of the more significant strategic changes made in this review it is not felt that pursuing this agenda with HMRC is a priority.

In addition, CITB levy payers were particularly negative about the grant claim process despite recent reform. In 2022/23, the CITB's grant processing costs were £3m.

ECITB:

In the 2022 financial year, ECITB spent £276k on levy collection which equates to 1.1% of total levy income. There was some support from ECITB stakeholders for modernisation of the levy assessment and collection process, particularly to avoid in scope employers having to provide annual evidence to determine if they are in scope.

The ECITB's grant processing costs are approximately £100k per year.

There is a perception amongst levy payers of both ITBs that they should be able to claim back in grants the full amount of levy paid in. As a result, levy payers are critical when they are unable to obtain money via grants. Stakeholders of both ITBs reported difficulties in accessing grant funding.

In line with the ALB review priorities, further operational efficiencies should and could be found and although both ITBs, and in particular CITB, have implemented reforms to improve their efficiency, it is felt there is still a need to reduce 'leakage' of levy funds to meet internal costs.

It is also understood that the complexity of operating a levy grant system is larger in the construction sector than the engineering construction sector due to its greater overall size, fragmentation, and skew towards SME/micro-businesses. It is felt that efficiencies can also be found by redesigning the levy grant system and its administration.

6.2.3 Theme 3: Digitisation

Experience and lessons learned from the pandemic

The review noted positive examples of both ITBs facilitating remote learning for their own staff and industry during the Covid-19 pandemic.

CITB:

The CITB developed a range of e-courses for both its staff and industry including: Covid-19 safety, fire safety, health and safety awareness and site management. For many years the uptake of online learning was slow, and the pandemic provided a catalyst for customers to access services through a non-traditional route. The CITB built on the initial free online Covid module and now offers multiple courses free to access. In addition, the HS&E test which previously needed to be taken in an approved centre can now be taken online.

During the pandemic, CITB engaged with stakeholders using digital channels, including contacting customers by phone and email rather than face to face. The CITB utilised technology to maintain the right level of engagement with stakeholders whilst providing more flexibility. This resulted in higher and more consistent attendance levels than pre-lockdown.

ECITB:

In response to the pandemic, ECITB transferred several of its programmes from classroom-based to online, including supervisory and Client Contractor National Safety Group (CCNSG) courses. Subsequently, many ECITB-approved providers have adopted a blended approach to delivery of these courses. The ECITB also purchased £0.75m of online and virtual classroom learning programmes directly from suppliers (training providers) on behalf of the industry. This activity supported in scope companies to access training during lockdown when they had spending freezes enforced on non-essential costs including training, when cashflow prohibited additional spending or where companies' learning and development team were on furlough. It allowed businesses to keep their employees engaged whilst on furlough by providing, primarily management and professional training such as supervisory, project management and project control.

More recently, and because of lessons learned from the pandemic, ECITB has invested in a Learner Experience Platform with the aim to make knowledge learning more accessible to learners. This approach has included purchasing bulk licenses to deliver knowledge-based training, which is then provided to employers free of charge, thereby reducing the amount of grant claimed by employers for e-learning.

Digital services

CITB:

The CITB has developed several digital services which aim to save time and money and create efficiency savings for CITB and industry. This includes:

- online customer portal – to submit annual levy figures, check historic levy assessments and approve and check the status of grant claims.
- levy calculator - for employers to check how their levy liability will be or has been calculated.
- CITB eCourses platform - provides industry with online H&S training courses rather than traditional classroom course delivery.
- CDM Wizard App - a free app to help workers plan and organise construction projects, whilst working together with others involved to ensure work is carried out without risks to health and safety.

ECITB:

The vast majority of ECITB's customer transactions utilise digital channels. The ECITB moved away from paper-based approaches to activities such as levy declarations and grant applications several years ago.

Despite these moves to digitise services, efficiency concerns with two main areas of the ITBs' operations have repeatedly been highlighted to the review: levy administration (assessment and collection) and operation of the grants system.

6.2.4 Theme 4: Workforce

Staff costs

CITB:

The 2017 Review recommended that CITB increasingly concentrate on enabling and supporting others to provide high quality services and stop delivering services itself unless there is evidence of market failure or that intervention is needed to secure the quality and efficiency of services. In response to this, CITB implemented a reform programme which resulted in realisation of one-off financial savings of around £5m in 2019-20 and recurrent savings of a further estimated £4m per annum.

As part of this reform, the CITB outsourced its administrative functions and reduced its headcount from 1,305 FTE in 2017/18 to 815 FTE (including vacancies) in 2022/23 financial year, the actual number employed excluding vacancies is just over 700. The CITB's payroll cost in 2022/23 financial year was £37million. The review has seen a breakdown of CITB staffing by team and the high-level functions of each team.

ECITB:

Since 2017, ECITB's headcount has increased from 60 FTE to 85 FTE in 2022. This is substantially driven by significant growth in staff dedicated to marketing and senior stakeholder engagement and the creation of a team to manage new projects and initiatives. The ECITB provided the review with an organisational chart including details of all staff roles. The payroll cost in the 2022 financial year was £5.7m.

Estates

CITB:

As part of the CITB's reform programme (2017-2020), the organisation was able to reduce its leasehold office estate footprint by closing five office locations in line with lease end dates or break dates following work being re streamed, modernised, outsourced, or divested. The CITB also divested of surplus land at Bircham Newton in 2020.

In response to the Covid pandemic, CITB adopted a hybrid working approach which enabled it to further reduce its estates footprint and associated costs. The CITB closed its London Office and reduced the size of its Peterborough Head Office from 22,500 to 4,500 square feet which results in savings of £600k per year.

ECITB:

The majority of the ECITB workforce was hybrid working before the pandemic and, as a result, ECITB was already planning to sell its administrative office. However, the pace of this increased and allowed ECITB to occupy a much smaller new administrative office than would have been the case. The net saving from this is estimated to be approximately £20k per year.

Use of consultancy

CITB:

In 2022/23 financial year, CITB spent £592k on external consultants and to date in 2023/24 has spent £1.93m[142]. This total includes consultancy costs associated with the ESFA audit of the apprenticeships contract and the National Construction College Improvement Plan.

ECITB:

The ECITB has spent approximately £10k on external consultancy in 2023 to date on reviews of: materials relating to Site Based Assessments, competence requirements for instructor roles and similar programmes to Connected Competence.

6.3 Governance

6.3.1 Managing Public Money

Parliament must have oversight of public money. The ITB levy is defined as public money and HMT's method of providing this oversight is through spend controls, Delegated Authority Letters and Framework Documents.

The key principles for having oversight of public money are derived from Managing Public Money rules. On behalf of the public, Parliament grants the right to raise, commit and spend resources. HMT sets the ground rules for the administration of public money. These ground rules require that ALBs and their sponsor departments agree and sign a

[142] Information provided from CITB to the review team.

Framework Document. They also require sponsor departments to impose an annual Delegated Authority Letter.

An ITB levy is classified as a tax. Advice on classifications is provided by HMT's Class (2013) 2: Receipts document. Paragraph 4.13 of the document provides an example of where a levy is a tax.

> Where there is a compulsory levy imposed by a public sector body, and the payment of the levy does not bring a clear and direct benefit to the individual payer, the levy scores as tax in the National Accounts (and any expenditure funded by the levy scores as public expenditure). An example might be a compulsory levy on all the firms in an industry, payable in relation to their turnover, collected by a public sector research council which determines and funds a programme of research work relevant to the industry, or a compulsory levy based on staff numbers which was passed to a government body which gave grants to fund training for people working in the industry. The fact that the levy payer is a member of a group which benefits collectively or where many members of the group benefit does not provide a clear and direct link: the levy payer would have to benefit personally for it to be a negative public expenditure receipt in the National Accounts. [143]

The ONS public sector classification guide classifies both ITBs as central government bodies[144]. If the ITB levy was voluntary, paragraph 4.13 would not apply.

6.3.2 Framework Document

A framework document sets out arrangements for departments to monitor and understand their ALB's strategy, performance, and delivery. They are a core constitutional document of the ALB, and it is imperative that accounting officers, board members and senior officials are familiar with them, ensure they are kept up to date and use them as a guide to govern the collaborative relationship between the ALB, the sponsor or shareholder department and the rest of government. There is a joint obligation on officials and employees within the ALB and within the sponsor or shareholder department to be familiar with, update and comply with its terms as appropriate.

Framework documents for CITB and ECITB are both still in draft format and are, in fact, the only DfE Framework Documents that remain outstanding and unpublished. It appears the last draft Framework Document dates to 2010 although this was unsigned and therefore never agreed between then BIS and the ITBs. Both ITBs have been in joint

[143] PU1548_final.pdf (publishing.service.gov.uk)

[144] Public sector classification guide and forward work plan - Office for National Statistics (ons.gov.uk)

discussion with DfE since the last ITB review to resolve this. The lack of a signed Framework Document causes significant problems for the sponsor team to fulfil the requirement for clear, appropriate, and proportionate sponsoring arrangements as well as the requirement to ensure there is a clear statement of the ALB's purpose and objectives which should be set out within the Framework Document, agreed by the ALB/HMT. The reasons for this are complex, however resource may be a factor.

6.3.3 Delegated Authority Letter

HMT delegates to DfE, and the department then delegates to its ALBs, the authority to enter into commitments and to spend within predefined limits without specific prior approval. The Delegated Authority Letter sets out delegated authorities that give the ITBs standing authorisation to commit resources or incur expenditure without specific prior approval from DfE in specific areas and within specific limits. Where expenditure does not fall within these delegations, DfE and/or HMT consent will be necessary. The Delegated Authority Letter also sets out spend that must be disclosed to government regardless of amount (nil threshold for disclosure). This letter forms an annex to the Framework Document but is a standalone document (that should be) issued annually. The observations made at the end of section 6.3.2 above are equally valid here.

6.3.4 Spend controls

All central government organisations, including departments and the bodies they sponsor, must obtain approval from the Cabinet Office when they want to spend money on specified activities. New organisations are expected to comply with the spend controls unless specifically exempted when set up.

There is a presumption that all central government organisations are subject to all the spend controls unless specifically excluded at formation (e.g. through the founding legislation). In exceptional circumstances, exemptions may be granted to specific organisations within scope in respect of some or all the spend controls.

Failure to gain the necessary Cabinet Office spend control approval, or failure to meet the conditions set for approval, means that spending is outside an organisation's delegated authority and therefore irregular. Similarly, any resources committed, or expenditure incurred in breach of a condition attached to Cabinet Office spend control approval is irregular.

As set out in Managing Public Money Annex 7.2, the template framework document relevant to the ALBs classification should be complied with.

In the Governance analysis there is an assessment of how far the corporate governance of the ALB is compliant with the relevant requirements and expectations. These

requirements draw on best practice from the private sector (2018 FRC Code[145]) and public sector requirements (Managing Public Money, 2017 Corporate Governance Code of Good Practice[146]). This assessment also includes a compliance evaluation of the ALB board, Chair and non-executives, relationships with the sponsor department, Ministers, and the Principal Accounting Officer.

6.3.5 Theme 1: Delivering wider government objectives

Wider government objectives/policy

The 2017 review recommended that the ITBs develop and publish annual rolling business plans, setting out objectives and priorities for the next year and how they plan to measure success and include priorities and plans for Scotland and Wales which the ITBs appear to be doing. The CITB and ECITB business plans both refer to some of the wider government priorities such as people pipeline, skills system, and upskilling workforce, as well as mentioning specifically the need to contribute to work in the net zero space.

The interaction between DfE and the ITBs within the green skills space and Skills Bootcamps appears good (albeit the industry's poor feedback on construction related Skills Bootcamps has been noted). Both CITB and ECITB are working with DfE in the development of the Net Zero Response Fund and CITB are taking the lead to design and deliver a 2-year pilot. Through the work of the Green Jobs Delivery Group, the ITBs are involved in work focused on workforce assessments which will be used by government to see where existing policies, including skills, need to go further and faster to meet the needs of net zero and nature recovery. Notwithstanding all of the above, there is limited evidence that CITB activity has led to the industry being more adequately prepared for the impact of green skills or being better able to address other government priorities. There is also recent evidence that CITB have not kept abreast of government policy and funding programmes resulting in inaccurate skills planning statements.

There is also insufficient evidence of the department involving the ITBs earlier enough in strategy and policy development. This is a missed opportunity and the review team recommend the department should address this.

Union capability

In addition to the business plan, CITB's Nation Plans set out what activities CITB will focus on in England, Scotland, and Wales to support the construction industry to have a skilled, competent, and inclusive workforce, now and in the future.

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[145] UK_Corporate_Governance_Code_2018.pdf (frc.org.uk)

[146] Corporate governance code for central government departments 2017 - GOV.UK (www.gov.uk)

The review has heard evidence from some stakeholders of improvements in the Nation Council's relationship with the CITB board and executive and satisfaction with the revised approach to nation plans. However, some of the feedback was more mixed and reflected that the Nation Councils don't work in the way they were designed. There was a feeling that there was insufficient tension between the Councils and CITB to hold the ITB to account. Some stakeholders believe that the industry membership on the councils didn't effectively represent the sector. Some stakeholders also felt that DfE's role was too passive with regards to nation councils. DfE observed meetings but didn't take an active role to ensure the nation councils were sufficiently representative.

The ECITB Strategy 2023 - 25 seeks to focus on tackling the industry's main skills challenges and builds on work during the pandemic.

The ECITB operates a regional structure to ensure that delivery of training support and services is driven by the demands of industry on a regional basis. During 2022 there were 11 regional forums and one national forum. Each forum comprises industry employers, and either represents a geographical area, or a significant industry sector. Each forum normally meets three times a year under the chairmanship of a Regional Chair, who has been elected by the members of the forum.

Devolved Administrations

As described in section 5.11.2 there is some positive interaction between the ITBs and the DAs and an opportunity for increased visibility with Scottish Ministers. Furthermore, the sponsor team should be more sighted on what is happening in the DAs and the DAs might benefit from having a sense of where the ITB strategy is going and the opportunity for more joined up thinking whilst respecting legitimate national nuancing of delivery.

6.3.6 Theme 2: Purpose, leadership, and effectiveness

Purpose

Both CITB's and ECITB's corporate and business plans clearly set out the purpose and contains a set of values for the organisations however there is also a requirement for these to be set out in the Framework Document which, as already described, is missing. The roles and responsibilities of the Chair and board members are clearly documented.

Leadership, composition, and membership

The lack of an agreed Framework Document is a gap for this part of the theme as the document would set out the accountabilities of the ALB CEO as Accounting Officer and the sponsor department Permanent Secretary as Principal Accounting Officer to Parliament (as referenced in section 6.2.1). Beyond that though this theme is broadly met. While both boards struggle with their diversity, this is reflective of their industries. They continue to work with the department to try to address it.

The roles and responsibilities of both boards' Chair and trustees is clearly defined in writing. The trustees are volunteers and are not remunerated. Both ITBs ensure that the leadership of all key committees is held by trustees.

The CITB has a professionally qualified Chief Finance Officer as part of its executive team who attends but is not a member of the board. The ECITB's board is supported by a finance director, who attends board meetings but is not a member.

Effectiveness

Meetings and attendance records of CITB and ECITB board members are disclosed in the 'Governance Statement' in the Annual Report and Accounts publication.

Every three years, CITB commissions an external review of the effectiveness of the board, the most recent of which commenced in January 2021 and concluded in May 2021 by Stone King. This review concluded that CITB's board is effective, with some aspects of very effective practice. It also carries out internal effectiveness reviews annually. It has an action log of recommendations which are updated on a regular basis.

The ECITB's Chair has led a board effectiveness review, with appropriate input from DfE, CEOs and other board members in the past year and an externally facilitated review of the effectiveness of the board has been conducted within the last three years.

6.3.7 Theme 3: Appointments, skills, and training

Appointment and Appraisals

The annual governance cycle for CITB incorporates internal reviews of the effectiveness of board committees and nation councils, an appraisal of the board Chair undertaken by DfE, and individual appraisals of trustees and nation council Chairs conducted by the board Chair.

The ECITB reports it doesn't have annual board appraisals of all non-executives conducted by the Chair.

Skills and Training

Both ITBs appear generally good and compliant with regards to their boards having a balance of skills and experience appropriate to fulfilling its responsibilities and the operations of the organisation as well as succession planning. Both ITBs have an induction process for all new board members and CITB reports that Trustees are offered a range of training opportunities all year round and positions on various Committees to develop skills.

The ECITB reports it wasn't aware of the need to ensure development opportunities are made available to all board members, specifically regarding financial and reporting requirements.

6.3.8 Theme 4: Conduct and behaviour

The CITB reports it follows the principles of UK GDPR and the legislative requirements of the Data Protection Act (2018) and has relevant policies and procedures in place. An Information Governance group has been created to involve all relevant business stakeholders to ensure information governance. This includes representatives from security, estates, HR, and other relevant stakeholders within this Governance sphere. SSCL provide CITB's cyber security, including the NCSCs Active Cyber Defence toolset.

The ECITB reports it is good and compliant in all areas.

6.3.9 Theme 5: Effective financial and risk management and internal control

Effective financial management

The ITB business plans and budgets are agreed in their board meetings, which are regularly attended by a DfE observer. Financial updates are also provided by each ITB for the quarterly performance meetings with DfE. This generally shows a good engagement on spend progress through the year. However, the absence of the Delegated Authority Letter means that there isn't sufficient evidence of scrutiny and approval of proposed expenditure ahead of commitment.

Risk management and internal control

The CITB has an internal and external audit service in place. (External – National Audit Office; Internal - internal audit team, Grant Thornton GT). It complies with Public Sector Internal Audit Standards. There is good evidence of clear rules and policies in place covering expenses, fraud and corruption and modern slavery.

The ECITB maintains a comprehensive expenses policy - regularly updated for changing costs and feedback. The ECITB CEO and audit and risk committee contract with the Government Internal Audit Agency to conduct 4 audits a year and based on these provide a view every 3 years on the overall state of ECITB's control framework focussing on functional areas. Many of the audits are therefore based around providing assurance over the functional standards.

In addition, ECITB has been conducting and addressing next steps on the 'shall' statements for all functional standards. Progress on this has been updated at each audit and risk committee during 2023. The Government Internal Audit Agency complete their own comprehensive assessment of the Internal Audit functional standard, in partnership with ECITB.

There should be more evidence to demonstrate the ITBs complying with Managing Public Money regarding novel contentious or repercussive proposals, and this could potentially

be addressed alongside the recommendation to ensure a Framework Document, Delegated Authority Letter and spend controls exist.

6.3.10 Theme 6: Transparency

Both ITBs proactively publish their data, including performance data and there is evidence of effective procedures in place for handling complaints.

While neither ITB conducts open board meetings, they both have active engagement across their sectors when developing strategic plans and in the lead up to the consensus process. The CITB board minutes are available to the public on request with a summary of the minutes published on their website.

6.4 Accountability

6.4.1 Theme 1: Effective sponsorship

There is a requirement for the sponsor team to demonstrate appropriate links to the ALB that can facilitate the delivery of the government's objectives. This review has considered whether the relationship between the sponsor department and ALB is in line with ALB sponsorship code of good practice[147] and meets the requirements of Managing Public Money.

As discussed previously in this report, the lack of a Framework Document must be resolved for both ITBs. This will enable the departmental sponsor team to fulfil the requirement for clear, appropriate, and proportionate sponsoring arrangements as well as ensuring that there is a clear statement of the ALB's purpose and objectives.

The sponsor team appears to be under-resourced for activity required by the legislative framework (see section 5.11.1) and the need to implement and support the Framework Document, Delegated Authority Letter and spend control approvals. Both ITBs report delays in progressing requests made of the department due to competing demands on the sponsor team's time. Furthermore, while this review agrees with the concept of the priorities letter issued annually by the skills minister, it is also felt that there is scope to improve the direction provided by this correspondence.

As set out in section 6.3.5, the sponsor team holds monthly KIT meetings and quarterly strategic performance review meetings. Overall, the level of engagement between the ITBs and the sponsor team appears to be good.

[147] Arm's length body sponsorship code of good practice - GOV.UK (www.gov.uk)

6.4.2 Theme 2: Accountability of the ALB to the department

The sponsor team communicates policy developments and ministerial priorities to the ALBs via annual priorities letters. The quarterly strategic performance review meetings then provide an opportunity for the department to update the ITBs on policy developments via a standing agenda item.

The review team found that the ITBs are engaged with some areas of skills policy. The department provided evidence CITB and ECITB are helping deliver wider government objectives both within the green space and through their involvement in Skills Bootcamps.

As referred to in sections 6.1.4 and 6.3.5, there is good evidence of the ITBs involvement in green and net zero skills as well as Skills Bootcamps.

The ITBs report performance against budgets to the sponsor team throughout the year. Ensuring both ITBs have a Delegated Authority Letter would enable the sponsor team to better hold the ITBs to account for adhering to its budgets and should also enable compliance with the Treasury Approval Process guidance[148].

Risk

As set out in section 6.1.4, risk monitoring and appetite appears to be well controlled by the ITBs and they link into the departmental performance and risk committee well. The sponsor team understand how to escalate risks but are unclear about the route into the DfE board. DfE representatives attend the ITBs' boards and audit and risk committee meetings.

The CITB is a member of the DfE risk leads network at which developments in risk management and key risks are discussed. The CITB reports it has been a participant in all recent risk sharing workshops that have probed key risks that are common or of relevance across a number of ALBs.

The CITB has in place arrangements for internal audit that are designed to comply with Public Sector Internal Audit Standards and are set out in the Internal Audit Charter. The CITB has a small team internally led by a Head of Audit and Risk who holds a relevant professional qualification and is supported in delivering the annual programme by an external firm appointed following a competitive tender in May 2022.

The CITB undertakes an annual health check that covers information assets and security. Information Governance and Security, Business Continuity and Sustainability

[148] https://www.gov.uk/government/publications/treasury-approvals-process-for-programmes-and-projects

risk are all matters considered by the audit and risk committee. The sponsor team attend board and other committees where these topics feature regularly.

The ECITB's senior leadership team reviews risk monthly. Risk is reviewed bi-annually by both the audit and risk committee and the board. During 2023, ECITB's board implemented a risk appetite statement, endorsed by the audit and risk committee.

The ECITB's risk management policy was updated in accordance with the Orange Book. An internal audit on risk management, conducted by Government Internal Audit Agency in 2022, considered the effectiveness of ECITB's risk management processes against the good practice outlined in the HMT Orange Book. All recommendations from this audit were implemented in 2023. ECITB is in the process of arranging risks training for staff members and enhanced training for senior leadership team members and heads of departments.

Information

The sponsor team confirmed good compliance with the requirement for the ALBs to have effective policies in place in relation to managing information assets, security, business continuity and sustainability.

There are no formal Service Level Agreement (SLAs) in place with the ITBs regarding information. However, the sponsor team reported that CITB and ECITB would respond to any requests relating to information assets, security, business continuity etc in a satisfactory and timely manner.

The sponsor team highlighted that an SLA would be beneficial in respect of requests for financial information such as to facilitate spend control approvals (and the delegated authority limits). This would help to ensure there is no delay/drag on ITB business.

ALB boards

There is evidence of good compliance with the requirements for the department and the ITBs to carry out annual appraisals of the ALB Chairs. New board members are provided with appropriate inductions and the ITBs have codes of conduct in place for board members. The department needs to ensure that the formal process for escalating disagreements and or disputes between a board and an Accounting Officer is documented as part of the development of the Framework Document.

6.4.3 Theme 3: Accountability of the ALB to Parliament

Relationships

Under the Industrial Training Act (1982) ITB board members are ministerial appointments and the ITBs and the sponsor team comply with the public appointments process. Although the Act gives the ITBs the power to appoint its officials, both ITBs ensure that

the minister is informed about CEO appointments. Typically, the Minister has met with the Chair of each ITB at least once per annum to discuss objectives, performance, risks and ALB talent board and recruitment. However, this did not happen with the Chair of ECITB in the last year.

The sponsor team ensures that the ITBs Accounting Officers act within the authority of the minister and there is a Dear Accounting Officer letter for each ITB to support this. The ITBs also lay their Annual Report and Accounts in Westminster and Holyrood. However, without a Framework Document and spend controls process, more evidence is needed to demonstrate full compliance with public funds.

6.4.4 Theme 4: Accountability of ALB to other government functions

The department makes appropriate use of functional leads to help address issues and queries. In general, functional support within the department is good but this will become critical for effective compliance with spend controls, see section 6.3.4. There needs to be clearer evidence of how each ITB complies with the government functional standards[149].

[149] Government Functional Standard - GovS 001: Government functions (publishing.service.gov.uk)

7. Conclusions & detailed recommendations

This review has been tasked, as set out in the Terms of Reference, with assessing whether these two boards should continue to exist, and if so in what form and performing what function, under what governance and how accountability should be upheld. The core principle of an ITB is a legislative mandate to intervene in a sector's labour market and to create an outcome where the propensity to train and develop the workforce is greater than it would otherwise be.

The review has concluded that the biggest single issue facing both sectors is the confluence of structural labour force attrition, stubbornly low productivity, and the growing challenges of having to transition to delivery of better quality assured built assets capable of supporting national priorities including clean economic growth.

This review has found that there is now a growing risk that labour supply constraints, skills scarcity and misalignment may create a dangerous cycle of unsustainable wage inflation, static or falling productivity. There is a related risk of increased variability in the quality of the industry's output as it is put under more stress. Clients of the industry, both private and public sector-based face the real prospect of paying more for less. This could undermine private market confidence to invest in capital assets and weaken political confidence in the ability to deliver, within fiscal constraints, infrastructure or other policy led programmes that rely on the engineering construction and construction sectors.

In essence this prognosis requires an urgent plan to enable industry to use its existing and future workforce more effectively and efficiently to meet the new demands being increasingly placed on it (i.e. to build capacity and capability to do more, better and potentially with less). Despite training and workforce development so often being seen as a cost, the issues the industry are now facing represent an overwhelming case for investment in its domestic workforce, a case that the ITBs and the statutory levy was always meant to promote. It has never been more important that it is now made to work.

Although this conclusion will not be a surprise to the industry and certainly not to the ITBs, the review has found that despite some relevant strategic planning and progress towards addressing these growing problems is evident, it is too slow and its impact is of insufficient magnitude. It is now considered that a wholesale change of approach is urgently required to safeguard the continued ability of both sectors to deliver the infrastructure and economic growth needs that are vital to this country's national interests. Any change of approach needs to start with the evaluation of whether the ITB model is fundamentally appropriate in the first instance.

In general terms, it is worth making the point that evidence of functional performance and impact as well as overall level of industry alignment with its levy payers has generally been more positive for ECITB than CITB. However, the review also recognises that the challenge within the much larger and more fragmented construction sector is far greater so like for like comparisons are perhaps unfair. Ultimately, standing back from the hard

work that is going on and the level of emotional and physical investment in making the respective industries better it is clear things need to change.

Any such change to the current arrangements however must also respect the huge complexity and fragmentation of the industry's composition, especially in construction. It must try to work with what it already has as a start point rather than starting again from a blank sheet which ultimately will take too long to generate results. However, the role if any of the ITBs in any refreshed future scenario must be effective, efficient, strategic, and influential. If difficult decisions regarding the ITB model's existence or major alterations to current structure and approach are required to make this happen, they should not be shied away from.

The central conclusions of the review are that:

- an intervention into the labour market to support workforce development is still required and warranted in the engineering construction and construction sectors
- the above finding is heavily influenced by the nationally important role played by these two sectors in delivering housing and critical social and economic infrastructure which in turn is fundamental to underpinning economic growth and improving the nation's productivity
- the need for an intervention is further underlined by the unprecedented risk now emerging in relation to declining workforce size and resiliency. This is being driven by demographics, societal change, technological trends and changing end client and regulatory requirements
- this threat to workforce resiliency and quantum is further exacerbated by a continued reliance on labour intensity combined with poor industry productivity and a low propensity to modernise. This now threatens future long term industry growth potential and risks driving unsustainable wage inflation. Importantly, this would not equate to the government's aim of moving towards a high wage, high skill economy which is fundamentally premised on higher productivity. The current outlook also increases risk of quality and safety issues due to structural capacity shrinking and possible competence dilution as experienced and capable workers retire or exit the industry
- the continued exposure of the two sectors to amplified economic cyclicality is a major risk of further hollowing out as in downturns existing trained workers are let go, new entrants not taken on and self-employed workers are underutilised or also exit the industry. There is a basic workforce utilisation challenge in terms of how to better forecast demand and how to better connect available workforce supply with those often-volatile demands. The current construction downturn means there is a real danger of cyclical erosion happening now and through into 2024/25
- site based labourers, tradespersons, supervisors and managers (i.e. the vast majority of the workforce) are likely to remain the workforce segment with the biggest risk of future shortages. This cohort is also likely to have less potential for

near term major technological automation potential and step change productivity improvements

- this contrasts with what possibly could be significant near-term future impacts on certain professional, technical and knowledge-based workers through the likes of AI and data analytics etc which could hugely improve productivity and reduce certain workforce growth pressures but will also challenge the need for more dynamic future workforce forecasting as well as retraining and versatility of the existing workforce
- current ITB and wider industry activity related to industry image improvement, new entrant attraction and diversification is not showing results at sufficient scale to either offset future attrition risks or to step change diversity of the future workforce
- linked to the above, there is a real possibility that the industry has a natural and predisposed level of new entrant flow that is difficult to influence significantly upwards through school outreach measures or major campaigns. This flow is likely mostly related to pre-16 academic outcomes, societal and cultural trends or family and other personal influences
- in turn, the industry seems to have an absorption ceiling on taking on new apprentices and other employed learners, irrespective of funding support available from ITBs and government due to the difficult trading environment they operate in and sheer capacity to mentor and supervise learners with its related indirect financial impact. Therefore, setting unrealistic or notional targets for step changing the number of new starters may result in diminishing returns for the reasons stated above or lead to the unintended consequences of learners not achieving sustainable long-term employment
- the ITBs are arguably therefore concentrating overly on the attraction and training of new entrants rather than adopting a whole of workforce improvement approach which has more chance of 'moving the dial' at scale on industry wide capacity
- there is a reasonable inference that improved competency results in improved productivity so considering how to influence these two measures across the whole workforce feels central to resolving structural issues in industry capacity and capability

All the above suggests:

- there is a need to be ambitious but realistic in maximising new entrant inflow and its subsequent sustainable absorption into the industry
- new entrants and existing workers (both directly and self-employed) need to be able to attain and maintain minimum competence which can improve quality and productivity as a key required industry outcome
- there is a need to better enable flexible employment/deployment of appropriately trained resources in response to often volatile demands

The skills system needs to speed up achievement of these outcomes and should look at how to address:

- the requirement to reduce new entrant attrition via more diversified and effective bridging pathways from school or other sectors into sustainable employment, including maximising early and more flexible employability via useful competency attainment and productivity
- the need for improved and more flexible whole career pathways via more modularised and unitised standards, curricula, credentials, and qualifications, including provision for both specialist and generalist content. This needs to reflect the industry needs of both now and the near future, maximising common learning modules and better enabling cross-skilling and multi-skilling
- the need for worker capability to be measured more dynamically by competency attainment and maintenance, reflected via micro-credentialisation and lifelong learning not just by initial qualifications or more static measures
- the crucial need to attract and retain the trainers and assessors capable of delivering the training provision to respond to all the above

The need to improve whole of workforce competency is already starting to be addressed in safety critical areas across both engineering construction and construction but further decisions need to be made by industry and its end clients on the mandating, procuring, and policing of minimum proven competence of the wider workforce to ensure better outcomes in terms of quality and productivity

The task of validating worker competence is fundamentally linked to the need to record it. The current fragmentation of what are mostly health & safety originated carding systems and a lack of a unified industry wide true skills/competence register and passport system is seen as a weakness in the ability to adequately police the workforce and measure strategic improvement.

The appropriation of funding to support whole of workforce interventions would require a more efficient combined industry drawdown and mobilisation of both ITB levy and apprenticeship levy with additionality maximised. There is a sense that ITB levy could be better spent on more innovative and diverse pathways and programmes of training and upskilling whilst apprenticeship levy funding drawdown should be maximised for an appropriately widened and prioritised range of construction and engineering apprenticeships. Presently, significant ITB grant support for apprenticeships could be at least partly funded by existing DfE apprenticeship levy funding. There is also a need to think about how levy or other funding support can be more strategically deployed further in advance of orders being placed for major projects.

It is not clear whether current grant support for training currently provided by the ITBs is always aligned to strategic industry workforce needs, priority occupations or areas of biggest net impact. It appears grant is sometimes more focused on responding to individual employers' desire to maximise recovery from their levy payments in the year. There should be more focus on maximising funding from both ITB levy and apprenticeship levy for strategic industry training gaps and priorities not just funding what

employers feel is the best fit for their staff profile, especially when deployed at degree and higher levels

Linked to the above there remains a fundamental levy impact and outreach challenge and a need for large employers to support the SME engine room tail of the industry by accepting a net redistribution position not simply a desire to balance the books on levy out/grant in

So, turning to the efficacy of the role of the ITBs in the light of the above strategic findings, the conclusions are:

- the current ITB model, whilst delivering worthwhile training outcomes is not delivering a scale of impact and outcome that the industries require to future proof them against the issues highlighted above
- the issues being faced are nearly all common to both ITBs despite the market size and characteristic differences between their respective sectors
- there is a need for a fundamental reset with activities, key capabilities, and leadership all ‘root and branch’ reviewed with a ruthless focus turned purely to addressing the future workforce resiliency and quantum challenge set out in this review
- the role of any future intervention needs to be one of both leading on and enabling progress against a set of new strategic priorities as part of an industry wide workforce plan. This new strategic plan needs to be agreed between government, industry and the ITBs to ensure the right balance of leadership and/or support and funding of others is identified in different activities. It is likely this will involve some current activities stopping or reducing and new ones starting or ramping up
- there is a recognition that weaknesses in the ITBs ability to impact more expansive and tangible outcomes is not just linked to ITB performance and its priorities but also to its limited industry scope, some misalignment with external agencies and the impact of the wider skills ecosystem that does not always work well for the specific characteristics of the construction and engineering construction sectors
- in operational terms, there is evidence that there are likely to be opportunities for the ITB's to deliver efficiency and cost of delivery improvements, improve their governance, all with more balanced accountability towards both government and industry. Much of this is seen to be part of the resultant benefit of a wider reset against a new set of more focused priorities
- any reset needs to be accompanied by very clear conditions on performance linked to tangible, measurable outcomes in workforce development. Poor performance going forward should not have the protection of another full ITB review cycle period but instead should be subject to early intervention by government and industry

In going on to identify recommendations which seek to address the above findings, it has been recognised that a priority must be building off, catalysing, and accelerating the good and impactful things that are already happening rather than risking day to day ongoing ITB activity being disrupted. This could create an industry hiatus or other unintended consequences through 'throwing the baby out with the bath water'. Conversely, it also means that low value, unimpactful or uncoordinated activity should be stopped immediately to preserve funds and create better strategic focus.

To help guide the recommendations of this review, a vision of the desired future state of an ITB model and the required impact of any external intervention has been proposed as follows:

> "Transforming the current ITB model into a world class construction workforce planning and development system.
>
> This system should have the sole aim of enabling a more competent, productive and resilient industry, safeguarding the capacity and capability to deliver our nation's critical national infrastructure and decarbonised economic growth whilst ensuring the highest standards of quality and safety in the built environment."

The review team have continually tested emerging conclusions and direction of travel against this aspiration during the review process. Ultimately, it is felt that this vision needs to be fulfilled to warrant any ongoing legislative intervention into the engineering construction and construction sectors' markets.

It is also important to note as alluded to above that success in achieving this vision is not just contingent on a reset and transformation of the current ITB model itself, it will require modifications to some aspects of the wider construction and engineering construction skills ecosystem and this review has made recommendations which span both aspects of such transformation.

The review's detailed recommendations are as follows.

7.1 Strategic recommendations

Recommendation 1

Finding: There remains, on balance, a requirement for an external intervention into the workforce development markets of both sectors in response to an ongoing market failure in propensity to invest in the workforce. Removal of this intervention risks a further deterioration in levels of workforce investment.

Recommendation: The ITB model should be retained in terms of its basic statutory mandate but its strategic priorities, core capabilities and activity require wholesale

transformation. This all needs to be ruthlessly focused on addressing the fundamental workforce resilience challenges facing the construction and engineering construction industries.

Progress in implementing this change should be overseen by a cross-GB government and Devolved Administrations steering group convened and chaired by DfE.

Proposals to implement the recommendations set out below should be developed quickly with agreed milestones to be monitored by DfE. If DfE is unsatisfied with progress it should reconsider the viability of the ITB model.

Recommendation 2

Finding: In line with recommendation 1, the overall feeling of this review is that the ITBs are endeavouring to resolve an ongoing market failure in employer propensity to invest in workforce development and it is felt that the core intervention of a redistributive statutory levy grant system should be retained. There is however a need for this to done in the context of a reset ITB model and pursuant to a new set of objectives with better accountability for tangible outcomes to both industry and to government where in the public interest.

Recommendation: The statutory levy-grant system should be retained but modernised and refocused to ruthlessly drive measurable outcomes linked to the new priority industry challenges identified in recommendation 3 below. SMART KPIs should be developed aimed at maximising outcomes from levy spend with more balanced accountability between industry and government.

Recommendation 3

Finding: The current impact of ITB interventions is observed as insufficient to demonstrate reasonable additionality and on the face of it, justify their existence. This is reflected in the growing risks of future workforce attrition, future skills misalignment and a looming potential inability to meet future industry demand. This suggests a fundamental reset is required across both ITBs to change both direction and effectiveness.

Although there is significant difference between the construction and engineering construction industries there is a common fundamental challenge which both industries face in terms of declining workforce resiliency resulting in growing workforce gaps and skills gaps.

Ultimately, the review has not found any strong reason why a much more strategic and unified approach spanning both industry sectors cannot be adopted that harnesses synergies and efficiencies of delivery with more focused and aligned leadership on those common themes which will have the biggest impact on future workforce capability and capacity.

Recommendation: The CITB and ECITB should be merged into a single rebranded body (the 'new body') tasked with improving workforce resiliency through a single combined strategy. It should take on the role of a workforce development agency, spanning training and improvement of both new and existing workers.

The first step of this process should be to establish an interim body under government and industry oversight to manage the transitional state towards operational merger.

This interim body should look to realise shared efficiencies through an agreed integration plan between the two ITBs but retain ring fenced levy funds in the short term whilst options for levy consolidation are explored.

The new body should have specialist, sub-sector specific implementation teams spanning construction and engineering construction, responding to a common overarching strategy to drive high level thinking whilst avoid losing market context, employer alignment and intelligence.

The new body is to be held accountable to both government and industry on a more balanced basis, measured on defined outcomes as set out in recommendation 2, all related to improving workforce resiliency. There should be clear consequences for inability to evidence improvements and a clear direction of travel within a reasonable time, including accelerated winding up before the expiry of the next ITB review cycle.

Recommendation 4

Finding: The importance of improving worker competency is increasingly acknowledged, especially in a regulated safety context. There is an implicit link between competency attainment and both output quality and process productivity. Therefore, the strategic pursuit of improved competence across the wider workforce, not just the regulated elements of it, is seen as a necessary objective of the new body to lift, at scale, the overall productivity of what might be an increasingly resource constrained workforce and to also improve qualitative outcomes for its end clients.

Alongside this, there is a recognition that the industry's project based, and often erratic pipeline profile dampens ability to offer sustainable employment and to ensure the trained resources in the industry are maximised relative to the opportunities that exist. This leads to further risks of 'hollowing out' in downturns, accelerating workforce attrition. This suggests whole of workforce utilisation of a competent and productive workforce is the holistic required outcome to drive strategic scale impact.

Recommendation: Three new core strategic objectives are established which guide all priorities and a reset strategic plan. These are to:

- Improve industry's workforce competency & the ongoing maintenance of its currency.

- Improve industry's project level productivity & quality assurance in conjunction with other parallel regulatory reforms.
- Improve industry's strategic level workforce retention and utilisation.

These strategic objectives should be shared across both constituent ITB parts of the new body. It is recognised that although there will be differences in relative importance, the overarching needs are common so a fully integrated approach to arriving a strategic plan must be adopted. The other recommendations in this review are tailored to assist in helping shape a new strategic plan and to set out likely activity.

Recommendation 5

Finding: The impact of improving competency and productivity of the existing workforce is many multiples of that of the relative impact of the same solely for new entrants. ITB activity to date has though been too focused on attracting and training new talent, especially via apprenticeships, with levy funds and activity skewed towards this objective despite an industry wide under recovery in apprenticeship levy. While workforce replenishment is vital, this has left insufficient priority and fund allocation being deployed to implement industry wide strategic programmes of intervention to upskill/reskill the standing workforce and to diversify entry pathways. Where these are currently done, they tend to be lower impact or pilots or trials in response to industry proposals with pepper potted funding that never reach maturity.

Recommendation: A refocused levy-grant system should have a revised strategic balance between individual employer apprenticeship grants and other non-apprenticeship support. It should deploy activity and funds more into programmatic activity and new pathway interventions with both new and existing workers that are scalable and impactful and span both the employed and self-employed workforce.

The new body should also move to a more directive approach to funded interventions, using consultation with government and industry to quickly agree and test and evidence concepts and where appropriate decisively implement a course of action injected into the workforce and rolled out thematically at scale. This is a shift from inviting mostly small-scale grant applications and proposals from industry. This will also require an intelligent interpretation of government procurement rules to ensure this drives positive impact whilst continuing to evidence value for money.

The new body should in turn help maximise industry recovery of apprenticeship levy and other DfE funding sources to ensure the current level of support for individual apprenticeships is maintained whilst more programmatic and structured activity is ramped up. The focus of all funding activity should align to improving average industry competency, productivity, utilisation and retention and prioritising this in line with current and projected future occupational 'pinch points'.

More strategic and in advance workforce investment in creation and retention needs to be supported for major projects where there is a critical workforce or skills gap which cannot be resolved during the project's currency and requires pre-planning.

Recommendation 6

Finding: There is a weakness in the ability of the industry to maintain constant levels of employment. The project-based nature of capex commitment is at the heart of the market failure that the ITBs are set up to resolve. Attempts to strategically capture at a national, regional level and local level the likely pipeline of work and in turn workforce needs have had mixed accuracy and impact to date.

The review has found that there is a need for a much more strategic demand planning and linked work brokerage function which can enable skills and competency supply to be better matched to demand over time and geography, including potential for transferable skills within industries, including across engineering construction and construction, to be better identified and exploited and for employers to be able to make more informed decision on investing in human capital.

Recommendation: The ITBs and subsequently the new body should be tasked with owning and driving as a primary objective strategic workforce planning. This should have the aim of helping industry maximise employment continuity, average workforce utilisation and high-level industry productivity. This should also identify the need for supported advanced investment on major projects as described in Recommendation 5 above.

As a key tool, the ITBs in their interim state and ahead of the creation of the new body should enable development, with external input as necessary, a fit for purpose, free to use, digitally enabled, dynamic real time strategic workforce planning and jobs brokerage platform, maximising free to use functionality and developing critical scale through a unified ecosystem of data sources.

This platform should link data driven future workforce demand modelling to the current workforce supply side picture via the digital competence register referenced in Recommendation 10 below.

Recommendation 7

Finding: As part of the wider war for talent, the engineering construction and construction industries are struggling to attract new resource in sufficient quantum to offset the impact of an ageing workforce and other sources of leakage. There is a significant question over whether current activity by ITBs is creating sufficient additionality beyond an otherwise defined natural inflow of new entrants due to other circumstances and influences.

There is some progress being made in higher and degree level academic and vocational entrants delivering for the wider built environment professions but there is less progress

being made in the biggest challenge - significantly increasing numbers of low and mid-level construction site operative new entrants.

The need for an overhauled approach to appropriately messaging what the industries do and offer as a fulfilling career opportunity is critical to improving new entrant flow and diversity beyond that the industry would naturally attract without any intervention. Current initiatives appear varied in their approach and effectiveness and are at risk of not being strategically coordinated for maximum consistency and impact.

Recommendation: The ITBs and subsequently the new body should, as part of a shift in focus, reduce its direct activity in new talent attraction and diversification whilst retaining its funding responsibility.

Retention is to remain a strategic objective as part of its priorities.

It should pass over control of all related careers and outreach collateral to industry for it to fully own, develop and drive in a way that it decides upon, most probably through a combination of external actors and employers. For construction, it is expected that CLC will provide leadership here whilst the new body provides funding as required.

In guiding any industry activity and indeed funding provided from the new body, attraction, diversity, and inclusion initiatives need to be better coordinated with much more of a single voice approach. Selected ambassadors should have an entirely new toolkit to help convey a compelling message to a more diversified audience creating a higher impact means of outreach. (Note: Training for improved inclusivity and mental health within the existing workforce is deemed to be part of the broader competency led 'behaviour' requirement to be retained by the new body)

It is expected that the separately recommended overhaul to career pathways should inform the evolution of tools such as Go Construct to make the industry's 'shop window' much more user friendly, identifying common pathways and specialisation options. This should be reflective of a more flexible spectrum of career opportunities all sitting within an overall coordinated structure.

Industry leaders need to continue to recognise the role their organisations and role models can play in assisting with this effort as part of their social impact and the wider futureproofing of their own industry.

The need for specialist external media and communications sector support and its levy funding should be identified by industry. Activity in this area is not expected to be a variation on an existing theme if it is to be successful.

Recommendation 8

Finding: The entry pathways into both industries are dominated by a legacy of trade specialist and professional discipline silos with very linear and protracted qualification and progression routes that do not necessarily equate to true competency or reflect

maintenance of competency on a whole career basis. There are also some job roles that don't seem to have adequate progression pathway alternatives and end up being career dead ends. This review has found that there is a question as to whether the current career pathway architecture is effective in maximising both the supply and retention of appropriately trained workers into the industry whilst optimising their utilisation and agility against a backdrop of often volatile demand fluctuations and changing technical requirements.

Recommendation: The ITBs and subsequently the new body should in conjunction with government and industry, urgently redefine its role in leading and/or supporting a refresh of existing construction and engineering construction occupational and qualification standards and associated pathways.

A new pathway landscape should build off existing progress and potentially become more modular, unitised and matrix like with common elements and specialisation options. It should be the basis of a revised funding and grant offer from the new body to industry and redefine its relationship with providers.

The matrix should span the entire career journey from worker entry to exit – including better means of validating experience equivalence to formal qualifications and introducing micro-credentialed re-skilling & up-skilling requirements. This should all be linked to competency demonstration and maintenance.

This process needs progressive implementation in conjunction with DfE, Institute for Apprenticeships and Technical Education (IfATE), Ofqual and devolved administrations. It should aim to better align Occupational Standards, National Occupational Standards and allow improved additionality of funding between Apprenticeship Levy and ITB levy. It should result in much greater harmonisation and collaboration with and support for IfATE and seek the alignment of industry specific views on the true need for additional or conflicting roles and standards relative to IfATE's current occupational mapping.

The ITBs and subsequently the new body should also act as lead coordinator to maximise the use of Skills Bootcamps, Local Skills Improvement Partnerships and other DfE funded programmes to assist meeting the new strategic objectives.

For construction, the ITB's and subsequently the new body's interface with the Construction Leadership Council (CLC) should ensure current initiatives regarding competence, pathways and productivity are combined not duplicated, with lead and support roles agreed between relevant bodies based on capability, industry reach and leadership and that important voluntary initiatives are able to access funded resources from the new body as an engine room of implementation.

Activity should also ultimately respect the requirements of regulated competency via the various working groups feeding into the Industry Competence Steering Group (ICSG) and the Industry Competence Committee (ICC).

Aligned effort is also needed to span the wider industry beyond current ITB scope using CLC convening power with of out-of-scope trade bodies and the like.

Recommendation 9

Finding: The policing of providers by the ITBs and in some instances the direct provision by the ITBs of training in response to existing pathways has been found to be of variable effectiveness, especially in relation to CITB, and there is an overarching sense of it requiring improvement. Better levels of innovation and dynamic influence of providers has been observed happening by ECITB in connection with the geographic clusters of activity their markets better segment into.

Current teaching is further compromised by out-of-date curricula and standards and more importantly lack of currency of teachers relative to workplace expectations and new methods/regulations. This will all be further challenged by any move towards a change in pathways and related learning format with more modular and incremental training needs in a more fluid and flexible matrix system.

Recommendation: The ITBs and subsequently new body should take a leading role in the crucial task of developing and policing a fit for purpose training provider ecosystem which responds to the more flexible and effective pathway system as per Recommendation 8.

Competence and workforce development specialists and experts should be engaged, including from other sectors to ensure this new offer is truly different whilst training for maximum long-term employability.

This provision should be reflective of a more future facing industry, but one also rooted in current industry practice to enable future proofing with immediate employability. The primary linked guiding theme for course development should be accelerating industry wide competency and productivity improvement in a more incremental manner using modules and units within a new pathway matrix as a currency of provision.

It is expected that there will be an increased element of digital tools and online learning techniques employed, appropriately assured, and policed, to allow speed and scale of impact. Similarly, there is an opportunity in this refresh to explore more workplace learning as opposed to remote classroom-based learning provided competence attainment is safeguarded.

A priority activity should be to train the trainers and assessors, ensuring current and near future industry practice alignment and the ITBs and subsequently new body should work with government to identify means of incentivising, adequately funding and ultimately attracting competent industry actors to make a career change and help enable this.

Industry leaders also need to increasingly recognise the role their organisations can play in assisting with this training effort alongside providers as part of their social impact and their own direct workforce development responsibilities.

Recommendation 10

Finding: The use of health and safety card systems in both sectors is widespread and accepted. However, they have historically been fragmented, especially in construction, and are not yet strategically enabled through the setting of unified standards of broader qualifications and linkages to minimum industry recognised competency attainment. It is felt more now needs to be done to translate best practice card systems more towards a single strategic platform capable of measuring and policing worker occupational competency, beyond basic health and safety matters.

This review is of the opinion that there is a good opportunity for successful existing schemes and collaborations thereof to be further leveraged, integrated, and to become mandated either through regulation or procurement. This would act as a competency-based industry wide barrier to entry and ability to work on a construction site beyond currently regulated scope.

Recommendation: The ITBs and subsequently new body should play a central role in helping facilitate with other agencies an industry wide digital skills passport system. This should span the whole workforce, with accreditations, experience, qualifications, and resultant proven competencies registered and capable of being policed. It should look to maximise inter-operability of existing card schemes, seek validation/refresh of their existing competency requirements and build critical scale through a connected digital eco-system.

This platform should in turn link to the strategic workforce planning and brokerage tool identified in Recommendation 6 above.

This digital skills passport should be used to prove regulatory requirements and to assist what is hoped will be increased instances of client, funder or insurer led procurement and enforcement of requirements for minimum workforce wide competency.

Recommendation 11

Finding: There is currently a missed opportunity presented by public procurement to drive improved skills and training outcomes on behalf of government and to catalyse the changes set out in this review. This is reflective of the crucial wider importance of end client leadership and participation in workforce development, including in the private sector.

The role of procurement generally is also crucial in moving towards mandating minimum whole of workforce competency beyond minimum regulation requirements as a condition of contract. This requires public client bodies, including government departments, IPA, other contracting authorities, and ultimately responsible private sector clients who rely on the industry to demand this in their procurement processes. This move can be enabled and policed through use of a national register of competency.

In terms of indirect workforce impacts via strategic public procurement, government, IPA, and its main capital spending departments should increasingly recognise the damage done to industry productivity and workforce investment through delivering erratic pipelines or reversing spending commitments. There is a crucial need, to use public works spending much more strategically and as a means of putting a counter-cyclical floor under construction and engineering construction minimum workloads to avoid workforce hollowing out.

There is also evidence that the current use of planning obligations under the Town and Country Planning Act are not always effective in driving and tracking outcomes and that there is an ongoing risk of short term 'post-code apprentices' being created without more joined up thinking about regional long term sustainable employment continuity.

Recommendation: Public sector procurement should progressively support a move, in line with the wider construction skills transformation set out in this review, towards a whole of workforce competency mandate. This would require evidencing of minimum worker competency as a condition of individuals being able to work on publicly funded construction projects or be contingent on an upskill plan being implemented during a project to attain this.

Parallel to this, it is hoped that responsible private clients, investors, and end asset owners would emulate this move through discretionary procurement led mandating. The development of the national competence register set out above in Recommendation 10 would be a key enabler of this transition.

In addition, government's Transforming Public Procurement programme and the application of the impending Procurement Act should recognise the wider benefits to the UK's society and economy of workforce wide skills development, training and sustainable, higher quality, more productive employment. Contracting authorities can play a key role in driving the right human capital outcomes from publicly funded construction projects.

In relation to enabling better, more strategic workforce demand planning, government's National Infrastructure Planning portal, hosted by The Planning Inspectorate needs to be integrated with a live version of the National Infrastructure and Construction Pipeline, sharing in one place a consolidated inventory of major projects and central, regional, and local government funded programmes. This all needs to have improved levels of detail and confidence level sensitivity updated in real time to show project status and funding commitment to assist industry in investing in people. This could then be reflected as a major component of the strategic workforce planning tool suggested in recommendation 6 above.

Overhauled model clauses for planning obligations should also be developed in conjunction with the recently updated National Policy Planning Framework (NPPF) to provide local planning authorities with fit for purpose and deliverable guidance on how

more sustainable workforce outcomes can be created both locally and regionally which assist the construction industry and the economy.

In both instances above, the key need is to view workforce related social value outcomes in relation to improving the characteristics whole workforce not just mandating minimum numbers of new apprentices, minimum SME participation, local spend or the like.

End client entities, not just employers from both engineering construction and construction should also form a much stronger part of the leadership and governance of the new body.

Recommendation 12

Finding: The historic legacy of ITB scope means there is the potential for the new body to be sub-optimal in delivering against new strategic objectives and risks being insufficiently impactful in new industry wide programmes of activity.

The review team has heard evidence that it would be very difficult, especially in the construction sector, to seek agreement through consultation to bringing some large, currently out of scope industries peripheral to current scope either into scope for the first time or back into ITB oversight where they have previously left. To attempt this process clearly risks becoming a possible distraction in a wider modernisation process being proposed in this review.

It is noted though that the increased focus suggested by this review on a whole of workforce outcome will naturally challenge fairness regarding who is benefiting versus who is contributing via the ITB levy.

Recommendation: DfE should, by exception, carefully explore and consult with industry on a modified legislative scope order, aimed at resolving the most obvious anomalies. These appear to be in new and emerging sectors in engineering construction and potentially in areas related to integrated mass building retrofit. This activity should focus on areas where out of scope sectors appears capable of improvement or realising synergies as opposed to interfering with fit for purpose out of scope skills systems.

Any consultations regarding scope augmentation should trade off potential wider catchment with levy rate reduction linked to a strategic funding and impact plan.

There should also be consideration of a fairness adjustment on future levy liability for those employers who employ people both in and out of current scope but who are charged levy on their entire payroll.

7.2 Tactical/operational recommendations

Recommendation 13

Finding: As the ITB levy is a tax, the ITBs are central government ALBs and required to comply with all the financial control requirements for ALBs of government. There is insufficient evidence of how the ITBs are complying with the Cabinet Office spend controls.

However, it is crucial that the ITBs' compliance with spend controls is not impacted by unreasonable delay in securing necessary approvals from government.

Recommendation: The ITBs and subsequently new body need to ensure and fully evidence that they meet all financial requirements of being ALBs of government. This includes an agreed Framework Document, Delegated Authority Letter, spend controls and functional standards.

The issue regarding whether government has a role in approving the ITBs strategic/business plans should be resolved.

An SLA process should be implemented as part of the requirement for the spend controls to be implemented.

Recommendation 14

Finding: There should be a clearer rationale for particular investment of ITB levy. Employers and government should be able to see a systematic link of strategy to delivery to evaluation back into refined strategy. This should inform the evidence base on delivery to refine future interventions and maximise value for money in ruthless pursuit of the strategic objectives set out in recommendation. Both ITBs have provided the review with encouraging examples of completed lessons learned exercises and have explained how learning from these exercises has been embedded into activity and used to inform future strategies. However, this review would like to see further evidence of how evaluation and lessons learned are used more systematically particularly in developing the overall organisational strategy and business planning.

The CITB's published performance measures have undergone change over recent years which makes it difficult for industry and government to understand if they are being successful. The latest KPIs are mainly focused on transactions or outputs, such as the number of people accessing career support or the number of taster opportunities available, rather than measuring the end impact or value added.

Recommendation: The review recommends that the ITBs and subsequently the new body do more to communicate to industry and government the rationale for investment in particular interventions. It should also set out what impact it expects an intervention to have, how this will be measured (incorporating into KPIs) and report on progress.

The ITBs and subsequently the new body should ensure their KPIs measure direct ITB induced cause and effect.

The ITBs and subsequently the new body, should show more evidence of a systematic approach to using evaluation and lessons learned to refine future delivery to maximise value for money.

Recommendation 15

Finding: There should be more transparency of the amount of funding spent directly on training and that spent on the costs of running the organisation.

It is important that levy in is converted to skills investment at an optimal rate. The CITB's reserves are currently significantly higher than the minimum level.

The CITB also appears to be reliant on external consultants at present.

Recommendation: Although some data is provided in ITB Annual Report and Accounts, the ITBs and subsequently the new body should seek to meet a 5% efficiency saving target, and the post-review changes should yield savings of at least 5% from operational expenditure, in line with Cabinet Office Guidelines. This should include a rigorous examination of the functional need for current staffing levels and propose ways to make significant savings. The CITB and subsequently the new body should seek to reduce reliance on external consultants.

The ITBs and subsequently the new body should consider publishing clearer evidence of levy spend to show the split between funding spent directly on training and the costs of running the organisation.

The review recommends that:

a) the CITB and subsequently the new body should benchmark elements of spend, such as issuing grants against other grant issuing or subsidy organisations and produce a comparator with industry averages within 6 months;
b) the ITBs and subsequently the new body should work together to benchmark common elements of spend; and
c) government should support the ITBs with benchmarking, including advice on suitable comparators e.g. using CO's public body benchmarking, which has eight grant issuing or subsidy organisations, to benchmark the ITB's corporate service costs.

The ITBs and subsequently the new body should continue to work with the department to agree appropriate levels of reserves that meet the requirements of the Charities Commission and HMT. The ITBs should provide regular reports on actual reserves in comparison to minimal levels of reserves to the department.

Recommendation 16

Finding: The review agrees with CITB's assessment that the time lag between the activity of its levy payers that the levy assessment is based on, and that payment being made is creating an issue, particularly for SMEs.

Recommendation: CITB and subsequently the new body should make proposals to DfE on reducing the levy time lag between levy returns and levy payment as much as the current legislative arrangements allow.

Recommendation 17

Finding: There is an opportunity for government (both in England and the Devolved Administrations) to benefit more from the existence of the ITBs to inform its own strategic planning.

Valuable insights that Devolved Administrations and the ITB sponsor team could share isn't being fully utilised.

Recommendation: The department should involve the ITBs earlier in strategy and policy development.

The ITBs and subsequently the new body should seek to engage more with ministers in Scotland and Wales.

The DfE sponsor team should consider engaging more closely with the Devolved Administrations to maximise opportunities.

The ECITB and subsequently the new body could do more to link its organisational sustainability measures and reporting to the Government Greening Commitments.

The DfE sponsor team should facilitate the ITBs and subsequently the new body to meet their obligations under the Government Greening Commitments.

7.3 Summary

The nature of the above recommendations above, reflects what this review feels is the outcome needed - a transformation of the construction workforce.

To achieve this requires a wholesale reset of the priorities and core role of an ITB model. In addition, the department should continue its work with industry through the Construction Skills Delivery Group to go further and faster to ensure the skills system is fit for purpose.

It is felt likely that to achieve the required level of improved long term workforce resiliency, the full range of recommendations will need to be implemented and cherry picking could render change ineffective. There is a wider system effect of the combined impact of all the proposed changes working together which could mean individual

recommendations implemented in isolation have little or no bottom-line impact. It is recognised therefore that there is an ‘all or nothing’ subtext to this review’s recommendations, representing a last throw of the dice to prove a new ITB model can be much more effective.

These detailed conclusions and recommendations form the basis of the high-level findings and recommendations for action set out in the Executive Summary.

Annexes

Annex A – ITB Review 2023 Letter of Commencement

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23 May 2023

COMMENCEMENT OF REVIEW INTO THE INDUSTRY TRAINING BOARDS

Dear Mark,

It was good to meet you on 11 May and I found our discussion very useful. This letter is to formally appoint you as Lead Reviewer of the Industry Training Boards (ITBs) Review. Please provide your agreement by signing and returning the attached terms of engagement. I also wanted to write to you to explain further the need for the Review.

The government is committed to delivering brilliant outcomes for the public. To achieve that ambition, public bodies must become more accountable, efficient, and effective and aligned to the government's priorities. No public body exists in isolation and your review must also consider the efficiency and effectiveness of the sponsor team.

Justification for review

Following a self-assessment conducted by the department, which looked at both the Construction Industry Training Board and the Engineering Construction Industry Training Board, as well as the sponsor team, the following issues were noted:

- Whether the ITBs still meet one of the government's three tests for ALBs;
- Whether the management and governance structures of the ITBs are effective and fit for purpose; and
- What is the appropriate governance relationship between DfE and the ITBs.

I also have the following observations on the Industry Training Boards which I believe merit further exploration:

- The quantifiable additionality of the ITBs in terms of developing and improving the skills of the workforce within their respective industries;
- Whether the statutory levy is the most appropriate model for the ITBs to meet their objectives; and
- Whether there is scope for reform, or merger, of ITBs.

When conducting a review, you would also, normally, be required to identify where savings to Resource Departmental Expenditure Limits (RDEL) of at least 5% can be made for an average review. The ITBs statutory levy is not part of RDEL so this specific requirement is not applicable. In this instance, you are asked to identify where the ITBs can make equivalent savings in their administrative costs instead.

Given the findings from the self-assessment and my own observations I have concluded there is a need for an in-depth review.

As the independent Lead Reviewer, you are accountable for the delivery of this review, with its findings and recommendations the result of your work. To support you, the department will provide you with a Review Team. You should contact Becca Taber (Deputy Director, Skills Group) who is ready to support you in your work.

The draft terms of reference for the Review are annexed below. I would like you to amend the draft and present it to me for approval. Additional Cabinet Office guidance and resources are available here (Public Bodies Review Programme - GOV.UK (www.gov.uk).

I look forward to meeting you in person and to seeing the outputs of your review.

Robert Halfon

Minister for Skills, Apprenticeships and Higher Education

Annex B – ITB Review 2023 Terms of Reference

Background

Industry Training Boards (ITBs) were created in 1964 to make better provision for the training of persons over compulsory school age for employment in industry. Their primary legislation, the Industrial Training Act, was updated in 1982[150], following the closure of several ITBs. Two ITBs remain – the Construction Industry Training Board (CITB) and the Engineering Construction Industry Training Board (ECITB).

Both ITBs are Non-Departmental Public Bodies, as well as being registered charities. Their chair and board members are ministerial appointments. The legislation requires that both ITBs have a majority of board members from their respective industry, as defined in legislation.

The ITBs are primarily funded by a statutory levy on their industry. CITB, which has a staff count of 715 raises around £190m in levy income per annum. ECITB, which has a staff count of 89 raises around £28m per annum. The ITBs' statutory functions, powers and duties are set out in the Industrial Training Act (1982), regulations made under the Act and relevant charity law. The ITBs' functions are specified in section 5 of the Act and include (among other things): the provision, approval of or assessment of courses and facilities for training; reviewing and publishing recommendations in relation to training; providing advice connected to training; and the paying or making of allowances, grants, or loans to training providers or employers to make use of courses or facilities connected to training.

The responsible minister, the Minister of State for Skills, Apprenticeships and Higher Education, acting on behalf of the Secretary of State for Education, is accountable to Parliament for all matters concerning ITBs.

The ITB Sponsorship Team in the Department for Education (DfE) is the primary contact for the ITBs. The Directors for the Post-16 Skills & Strategy Directorate are the Senior Sponsors for the ITBs. In addition to DfE, departments with a direct interest in ITBs and their performance are Her Majesty's Treasury, Cabinet Office, the Department for Business and Trade, Department for Energy Security and Net Zero and the Department for Levelling Up, Housing and Communities. In addition, the ITBs' legislative powers extend across England, Scotland, and Wales with DfE ministers required to consult with Scottish Ministers in a number of areas.

The ITBs were created to make better provision for the training of persons over school age for employment due to market failure of skills development within their industries.

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[150] Industrial Training Act 1982 (legislation.gov.uk)

The ITBs have an important role in helping to support the skills system to ensure that the construction and engineering construction sector has sufficient skills to deliver.

The ITBs were last reviewed in 2017[151], following the machinery of government changes which transferred their sponsorship to DfE. Prior to that, the Department for Business, Innovation and Skills (BIS) reviewed the ITBs (including the then Film Industry Training Board) in 2015[152]. It is expected that this review will include an assessment of progress made against relevant recommendations set out in the 2017 review.

Scope and Purpose of the Review

As described in the Minister's letter of commencement, the government is committed to delivering brilliant outcomes for the public. To achieve that ambition, public bodies must become more accountable, efficient, and effective and aligned to the government's and industry's priorities. No public body exists in isolation and the review must also consider the efficiency and effectiveness of the department's Sponsorship Team.

The Lead Reviewer must consider the government's Requirements for Reviews of Public Bodies[153]. It is expected that the review will especially consider the quadrants and themes, below.

Efficacy - to ensure the Arm's Length Bodies meet the conditions to be an ALB, with a clear purpose, in the correct delivery model and the expectations that the ALB performs effectively and delivers services that meet the needs of citizens:

- Do the ITBs continue to meet one of the government's 'Three Tests' of ALBs?
- Is the core statutory mandate and scoping for the ITBs fit for purpose?

What quantifiable impact are the ITBs having in relation to adequately preparing industry for future challenges?

- Is there scope for reform, or merger, of the ITBs?
- Is an ALB the appropriate delivery model for these functions?
- Is the statutory levy the most appropriate model for ITBs to achieve their objectives and if not is there another funding model that can augment or modify the current levy arrangements and can drive better outcomes?
- What is the industry experience of the ITBs?
- Do the ITBs follow the government's functional standards?

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[151] Building support: the review of the industry training boards - GOV.UK (www.gov.uk)

[152] The Review of the Industry Training Boards (publishing.service.gov.uk)

[153] Requirements for Reviews of Public Bodies - GOV.UK (www.gov.uk)

How are the objectives of the ITBs impacted by the wider skills funding and accreditations landscape including the roles of ESFA and IFATE?

Governance - the expectations of governance for Arm's Length Bodies (ALBs) boards, chairs, and board members:

- Are current governance and assurance mechanisms appropriate to the type and scale of the organisation and evidenced in up-to-date documentation?

Do the ITBs have a strategy for engaging with counterparts in the Devolved Administrations and Devolved Authorities?

- Do the ITBs have sufficient processes in place to develop their board members and appraise their performance?

Accountability – the relationships between departments and ITBs, and the support and challenge offered to ITBs via the critical 'sponsoring' relationship departments have with them:

- What is the appropriate governance relationship between DfE and the ITBs?
- Is the classification and oversight of the ITBs appropriate for the balance of control and day-to-day operational independence?
- What evidence is there that the Sponsor Team both supports the relationship between ITBs, ministers and the PAO as well facilitating the ITBs delivery of government objectives?

Efficiency – the expectations for financial management processes in line with current guidance, and the expectations for the identification of cashable efficiency gains made through change in practices, for example, digitisation and the workforce:

- Is there the opportunity for the ITBs to make at least 5% savings in their administrative costs unless they have already achieved this since the last Spending Review?
- Is there an opportunity to ITBs to expand their commercial activity?
- Should ITBs continue to be able to invest levy funds?
- How do the ITBs review their grants to ensure that they meet their objectives and provide value for money?
- Is there sufficient correlation between where levy monies are spent or redistributed as grant / other funding and quantifiable industry outcomes?

Department and Public Body arrangements for review

The Minister for Skills, Apprenticeships and Higher Education is the relevant minister responsible. He should receive initial findings and recommendations from the Lead Reviewer halfway through the review process. He should provide his views on the direction of the review at that stage and his expectations for the second half of the

process. At the end of the review process, he should receive the Lead Reviewer's final report, complete with comments from the Industry Training Boards and the Sponsor Team, so that he can agree to the publication of the report and the Government's response to it.

The DfE Permanent Secretary will be the Principal Accounting Officer responsible for the review. She should have the opportunity to comment on both the initial findings and the final report ahead of submission to the Minister.

Industry Training Board activity covers Great Britain, and the Lead Reviewer should ask that the Secretary of State shares the reports and her response with the Devolved Administrations. The Lead Reviewer is encouraged to consider whether meeting with the Administrations would be helpful to the progress of the review.

The involvement of the Industry Training Boards and the Sponsor Team is set out in the stakeholder engagement section, below.

Lead Reviewer

The Review will be led by an independent Lead Reviewer, Mark Farmer, CEO of Cast Consultancy. As described in the letter of commencement, the Lead Reviewer is accountable for the delivery of this review, its findings, and recommendations. The Terms of Engagement set out the duties of the Lead Reviewer and they should also comply with the Cabinet Office guidance referred to in the section on scope and purpose, above.

Review Team

The Lead Reviewer will be supported by a team of Civil Servants from the Department for Education consisting of 1xGrade 6, 1xGrade 7 and 1xSEO. The department should also provide additional support to arrange interviews and challenge panels.

Evidence Gathering and Stakeholder Engagement

The Review Team is encouraged to identify relevant stakeholders to interview as part of the initial evidence gathering. It is recommended that the stakeholders are identified in collaboration with the Industry Training Boards and with the Sponsor Team. To enable wider participation, especially from smaller organisations or individuals, the Review Team should set up a mailbox and this should be publicised as part of the launch of the review.

The Review Team should also request and examine documents from the Industry Training Boards and the Sponsor Team. These should include any Self Assessments completed prior to the review, governance documents, records of meetings, pertinent legislation and any papers produced by the Industry Training Boards or DfE to raise areas of concern or specific interest.

It is expected that the Lead Reviewer will meet with the boards and senior leadership of both Industry Training Boards to discuss the approach, format, and milestones for the review. It is also expected that the Industry Training Boards and the Sponsor Team will be given the opportunity to comment on the final report and recommendations ahead of it being submitted to the Minister.

If the Lead Reviewer is unable to access data or information that they believe is pertinent to the review from either the Industry Training Boards or the Sponsor Team, the Lead Reviewer is advised to discuss the matter with the Senior Sponsors of the Industry Training Board to seek a resolution.

Challenge panels

The Review Team should set up one or more challenge panels. This should ensure representation from the construction and engineering construction industries as well as from the Departments of Business and Trade, Levelling Up, Housing and Communities, Department of Energy Security and Net Zero, His Majesty's Treasury and His Majesty's Revenue and Customs. The role of the panels is to hear from the Lead Reviewer, understand the evidence base, and challenge emerging thoughts and recommendations in a rigorous and constructive manner. They should use their respective expertise of the industries the ITBs support and of government, to benefit the Lead Reviewer in their role.

It is proposed that the challenge panels meet monthly during the first phase of the review.

Deliverables

The department should work with the ITBs to announce the review. The Review Team should notify the following Parliamentary committees - Built Environment Committee, Education Select Committee and the Levelling Up, Housing and Local Communities Select Committee. The Review Team should collate completed Self-Assessments from each ITB and the Sponsor Team to inform the evidence base. Further evidence should be obtained from stakeholder interviews and a call for evidence. The Lead Reviewer should produce two reports to conclude each stage of the review, as described in the timetable section, below.

Timetable

The review will start in June and is expected to be concluded by the end of 2023. The first phase of the review through to August will seek to answer the key questions in the above scope section, the Minister's letter of commencement and the government's Requirements for Reviews of Public Bodies.

The first phase will conclude with an initial report to the Minister, before the autumn. That report will indicate the Lead Reviewer's initial findings, propose the areas of focus for the second phase and seek ministerial agreement to proceed.

The second phase of the review will seek to provide a more detailed examination of the initial findings, incorporating any ministerial comments to the initial report. The second phase will conclude with a final report/recommendations, and a summary of findings.

The Minister will determine the final timing and manner of publication of the review and the Government's decisions on the review.

Annex C – Analysis of ITB Review 2023 Call for Evidence responses

Summary

Respondents showed a high level of support in the engineering construction industry for a central intervention being needed but there is less support in the construction industry for this. Generally, there was support for an industry levy, especially in engineering construction. Respondents indicated that entry routes and career pathways don't tend to reflect industry needs. There was uncertainty about workforce productivity and competency trends. Engineering construction industry respondents believed that the ITBs have helped with productivity and competency, but this was a minority position in the construction industry.

Overall, respondents didn't believe that ITB interventions have future-proofed the industry. There was support for the idea that there are things outside of an ITB's control that influence its effectiveness. Respondents believe that CITB's legislative Order isn't fit for purpose but ECITB's is. There was uncertainty about whether the ITB functions are the right ones. Respondents believe that CITB's strategy isn't aligned to maximum industry impact, but ECITB's is. Within the construction industry there was uncertainty about whether CITB's relationship with CLC is appropriate. Engineering construction industry respondents believe that ECITB's transition role has helped the industry. Generally, respondents didn't believe that the levy and grant systems redistribute funding effectively in construction.

Overall, there is belief that the ITBs can have significant or moderate influence in ensuring training is completed and sustainable outcomes achieved. Respondents indicated that the ITBs provide significant or moderate value for engineering construction industry levy payers but not for construction industry levy payers. Engineering construction industry respondents believe that ECITB communicates its services and how they can be accessed well, but construction industry respondents didn't share that view for CITB.

Overall respondents stated that ECITB's levy collection system is efficient, but that view wasn't shared for construction industry respondents about CITB's levy collection system. Finally, respondents believed that ECITB's grant, and wider support system is easy to access but that view isn't reflected in the feedback about CITB's system.

Individual question results

Do you believe that the trading environment in which the sector operates, and the way in which it has evolved itself to respond to that, means some form of external intervention is needed in the skills and training system to ensure it can deliver?

129 respondents answered this question. While a somewhat mixed picture the overall position tended to disagree - 45 agreed (35%) and 58 disagreed (45%). There is a

significant difference of opinion depending upon whether the return was concerned solely with ECITB (19 out of 22 agreed) or with CITB (20 out of 94 agreed). For those responding about both ITBs, 6 out of 13 agreed.

Without the levy the sector would invest less in skills and training.

All 155 respondents answered this question. There was more agreement here - 77 agreed (50%) and 53 disagreed (34%). Once again, there was a clear difference of opinion depending upon whether the return was concerned solely with ECITB (19 out of 26 agreed) or with CITB (49 out of 115 agreed). For those responding about both ITBs, 9 out of 14 agreed.

The current range of career definitions, entry routes and career pathways into and through industry are reflective of industry and employer needs.

All 155 respondents answered this question. There was more disagreement here - 48 agreed (31%) and 77 disagreed (50%). Once again, there was a clear difference of opinion depending upon whether the return was concerned solely with ECITB (14 out of 26 agreed) or with CITB (30 out of 115 agreed). For those responding about both ITBs, 4 out of 14 agreed.

What is your view on the overall average industry trend in workforce productivity over the last 6 years?

All 155 respondents answered this question. While a somewhat mixed picture the overall position tended to believe workforce productivity is reducing - 35 improving (23%) and 57 reducing (37%). Many respondents aren't sure. The ECITB returns are almost equally divided – 7 out of 26 report it is improving and 6 out of 26 report it is reducing. A similar response is seen for those reporting on both ITBs – 5 out of 14 report it is improving and 4 out of 14 report it is reducing. However, the returns for CITB are more pessimistic – 23 out of 115 report it is improving and 47 out of 115 report it is reducing.

What is your view on the overall average industry trend in workforce competency over the last 6 years?

All 155 respondents answered this question. Another mixed picture, although tending towards a negative view - 52 improving (34%) and 61 reducing (39%). However, there is a clear difference between sector respondents here. ECITB respondents are more positive – 13 out of 26 report it is improving and 6 out of 26 report it is reducing. The returns for CITB are more pessimistic – 31 out of 115 report it is improving and 50 out of 115 report it is reducing. For those responding about both ITBs, 8 out of 14 thought it is improving and 5 out of 14 thought it is reducing.

Do you think the ITB has positively influenced the productivity of the workforce over the last 6 years?

All 155 respondents answered this question. There was more disagreement here - 39 agreed (25%) and 69 disagreed (45%). Once again, there was a clear difference of opinion depending upon whether the return was concerned solely with ECITB (15 out of 26 agreed) or with CITB (18 out of 115 agreed). For those responding about both ITBs, 6 out of 14 agreed.

Irrespective of your answer to question 2c, do you think the ITB has positively influenced the competency of the workforce over the last 6 years?

154 respondents answered this question. A split view overall - 61 agreed (40%) and 59 disagreed (38%). Once again, there was a clear difference of opinion depending upon whether the return was concerned solely with ECITB (19 out of 26 agreed) or with CITB (36 out of 114 agreed). For those responding about both ITBs, 6 out of 14 agreed.

ITB interventions to date are enabling sufficient future proofing of the workforce in terms of new technical and regulatory standards, materials and methods.

All 155 respondents answered this question. There was more disagreement here - 33 agreed (21%) and 90 disagreed (58%). Once again, there was a clear difference of opinion depending upon whether the return was concerned solely with ECITB (14 out of 26 agreed) or with CITB (15 out of 115 agreed). For those responding about both ITBs, 4 out of 14 agreed.

Are there things outside of the ITB's control which impact its effectiveness?

All 155 respondents answered this question. There was more agreement here - 80 agreed (52%) and 23 disagreed (15%). There was more commonality of views here, tending slightly towards CITB - ECITB (11 out of 26 agreed), with CITB (61 out of 115 agreed). Although, it should be noted that no ECITB respondent disagreed, 15 replied 'unsure'. For those responding about both ITBs, 8 out of 14 agreed.

The statutory definition of 'Construction Industry' in Schedule 1 of the Industrial Training (Construction Board) Order 1964 (Amendment) Order 1992 is fit for purpose.

This analysis discarded responses from those reporting solely about ECITB. Thus, 129 answered this question on behalf of CITB or both ITBs. The respondents tended to disagree with this - 34 agreed (26%) and 51 disagreed (40%). For those responding solely about CITB 31 out of 115 agreed and for those responding about both ITBs 3 out of 14 agreed.

The statutory definition of 'Engineering Construction Industry' in Schedule 1 of the Industrial Training (Engineering Construction Board) Order 1991 is fit for purpose.

This analysis discarded responses from those reporting solely about CITB. Thus, 40 answered this question on behalf of ECITB or both ITBs. The respondents tended to agree with this - 17 agreed (43%) and 9 disagreed (23%). For those responding solely about ECITB 13 out of 26 agreed and for those responding about both ITBs 4 out of 14 agreed.

The functions of the ITBs defined in Section 5 of The Industrial Training Act 1982 are fit for purpose and reflect current needs.

All 155 respondents answered this question. Another mixed picture, although tending towards a negative view - 39 agreed (25%) and 50 disagreed (32%). Once again, there is a clear difference between sector respondents here. ECITB respondents are more positive – 13 out of 26 agreed. The returns for CITB are more pessimistic – 22 out of 115 agreed. For those responding about both ITBs, 4 out of 14 agreed. Many respondents are unsure.

ITB strategy is aligned to maximum industry impact for level of effort and funding required.

All 155 respondents answered this question. There was more disagreement here - 35 agreed (23%) and 76 disagreed (49%). Once again, there was a clear difference of opinion depending upon whether the return was concerned solely with ECITB (18 out of 26 agreed) or with CITB (14 out of 115 agreed). For those responding about both ITBs, 3 out of 14 agreed.

Is the relationship between the CITB and the CLC helping to set the appropriate strategic objectives on behalf of industry?

This analysis discarded responses from those reporting solely about ECITB. Thus, 126 answered this question on behalf of CITB or both ITBs. The respondents tended to be unsure with this - 26 agreed (21%), 40 disagreed (32%) and 60 were unsure (48%). For those responding solely about CITB 22 out of 113 agreed, with 54 unsure and for those responding about both ITBs 4 out of 13 agreed, with 6 unsure.

How important is ECITB's role in supporting skilled workers to transition to areas of growth in the Engineering Construction Industry?

This analysis discarded responses from those reporting solely about CITB. Thus, 38 answered this question on behalf of ECITB or both ITBs. The respondents tended to agree with this - 30 reported that ECITB's role had a significant or moderate importance (79%) and 9 reported it was insignificant or had no importance (21%). For those responding solely about ECITB 22 out of 26 reported a significant or moderate importance and for those responding about both ITBs 8 out of 12 reported a significant or moderate importance.

The levy & grant system sufficiently assists the redistribution of funding within the supply chain to reflect where training & resource deployment is happening and is most needed.

All 155 respondents answered this question. Another mixed picture, although tending towards a negative view - 44 agreed (28%) and 84 disagreed (54%). Once again, there is a clear difference between sector respondents here. ECITB respondents are more positive – 16 out of 26 agreed. The returns for CITB are more pessimistic – 25 out of 115 agreed. For those responding about both ITBs, 3 out of 14 agreed.

How much control and influence or support can ITBs have in ensuring training is completed and sustainable outcomes are realised in terms of a competent and productive labour force being added to in the long term?

All 155 respondents answered this question. There was a more positive response here – 105 reported significant or moderate control and influence or support (68%) and 50 reported insignificant or no control and influence or support (32%). There was more commonality of views here, tending slightly towards ECITB - ECITB (23 out of 26 significant or moderate), with CITB (74 out of 115 significant or moderate). For those responding about both ITBs, 8 out of 14 reported significant or moderate.

If you are a levy payer, what level of overall perceived value do CITB and ECITB deliver to your company?

This analysis discarded responses from non-levy payers. Thus, 80 respondents answered this question. A split view overall - 41 reported significant or moderate value (51%) and 39 reported insignificant or no value (49%). Once again, there was a clear difference of opinion depending upon whether the return was concerned solely with ECITB (15 out of 20 significant or moderate value) or with CITB (24 out of 58 significant or moderate value). For those responding about both ITBs, both respondents reported significant or moderate value.

The services offered by the ITBs and how they can be accessed are communicated sufficiently well.

All 155 respondents answered this question. There was more disagreement here - 52 agreed (34%) and 78 disagreed (50%). Once again, there was a clear difference of opinion depending upon whether the return was concerned solely with ECITB (23 out of 26 agreed) or with CITB (25 out of 115 agreed). For those responding about both ITBs, 4 out of 14 agreed.

The levy collection system is efficient and fit for purpose.

This analysis discarded responses from non-levy payers. Thus, 82 respondents answered this question. A split view overall, tending towards agreement - 27 agreed (33%) and 36 disagreed (23%). For ECITB respondents (13 out of 20 agreed) and for

CITB respondents (14 out of 60 agreed). Neither of the two responding about both ITBs agreed.

Is grant funding and wider support easy to access?

153 respondents answered this question. Another mixed picture, although tending towards a negative view - 37 agreed (24%) and 50 disagreed (33%). Once again, there is a clear difference between sector respondents here. ECITB respondents are more positive – 16 out of 26 agreed and only 1 respondent disagreed. The returns for CITB are more pessimistic – 19 out of 113 agreed, whereas 44 disagreed. For those responding about both ITBs, 2 out of 14 agreed and 5 disagreed.

Annex D – Breakdown of ITB Review 2023 Call for Evidence responses by organisation type

Type of Organisation	CITB	ECITB	Both ITBs
Micro employer (less than 10 employees)	14	0	1
Small employer (10-49 employees)	17	5	0
Medium employer (50-249 employees)	13	6	1
Large employer (250+ employees)	29	10	3
Education or training provider	12	0	1
Business representative organisation/trade body	13	0	2
Government body	1	0	0
Trade union or staff association	0	0	1
Other	4	0	3
Micro employer (less than 10 employees)	14	0	1
No information provided	12	5	2
Total	115	26	14

Annex E – ITB Review 2023 stakeholder interviewees

In relation to Construction Industry Training Board

Name	Organisation
Mark Reynolds	Mace CEO & Chair & Co-Chair of CLC
Alasdair Reisner	CECA
Brian Berry	FMB
Richard Beresford/James Butcher	NFB
Leigh Hughes	Bouygues/CITB Welsh Nation Council
Angela Forbes	Buildforce/CITB Scotland Nation Council
Sharon Llewellyn	JPR / CITB England Nation Council
Martyn Price	CCATF
John Slaughter	HBF
Paul Mitchell	Scottish Building Federation
Aled Williams	University College of Estate Management
David Wilkins	Bedford College Vice Principal
Maureen Douglas	CECA Scotland
Andy Mason	COSAC
Jill Nicholls	IFATE
Mark Worrall	Building Business Improvement (BBI)
Cliff Brown	Get It Right Initiative (GIRI)

In relation to ECITB:

Name	Organisation
John Simpson	ECIA
Jacqueline Longrigg	NDA
Heather Guanaria	Stopford Projects
Paul Ventre	Laker Vent Engineering
Shaun Poll	Worley
Mark Riley	Phillips66
Dave Talbot	Catch
Sean Johnston	NETA
Jamie White	EDF

With special thanks to both ITB Chairs and CEOs for their time given to Mark Farmer and the Review Team: Peter Lauener (CITB Chair), Tim Balcon (CITB CEO), Lynda Armstrong (ECITB Chair) and Andrew Hockey (ECITB CEO).

Annex F – 2023 ITB Review challenge panels attendees by organisation

Organisation name	Webpage
Arms-Length Bodies Strategy Team, DfE	Department for Education
Applus	www.applus.com
Balfour Beatty	www.balfourbeatty.com
BCECA British Chemical Engineering Contractors Association	www.bceca.org.uk
Build UK	www.builduk.org
Cabinet Office	Cabinet Office
Carr & Carr Builders	www.carrbuilders.co.uk
Department for Levelling Up, Housing and Communities (DLUHC), now known as Ministry of Housing Communities and Local Government	Ministry of Housing, Communities and Local Government
Department for Business, Enterprise and Industrial Strategy (BEIS)	Department for Business, Enterprise and Industrial Strategy
East Coast College	www.eastcoast.ac.uk
EDF	www.edfenergy.com
Electrical Contractor's Association	www.eca.co.uk
His Majesty's Treasury	HM Treasury
Morrisroe Group	www.morrisroe.co.uk
NOCN Group	www.nocn.org.uk
Scottish Government	www.gov.scot
SLB (Schlumberger NV)	www.slb.com
Sustainable Energy Association	www.sustainableenergyassociation.com
Trillium	www.trilliumglobalgroup.com

Organisation name	Webpage
Welsh Government	www.gov.wales

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