

RESPONSE TO THE INDUSTRIAL STRATEGY GREEN PAPER



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Consultation response to: [Green Paper: Building Our Industrial Strategy](#)

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A Productive Timber Sector

Timber; flexible, structurally strong and having the lowest embodied carbon of any commercially available commodity; contributes \$600 billion to the global economy around 1% of global total GDP. The World Bank forecasts the global demand for timber will quadruple by 2050.

The timber supply chain is a key part of the manufacturing and construction industries in the UK adding an annual value of over £10 billion to the UK economy. It provides jobs across a wide spectrum of skills, directly employing over 150,000 people across the country (with over 350,000 jobs reliant on timber). Recognising that skills are critical to productivity, there are currently over 10,000 apprentices currently working towards a woodworking, carpentry or joinery qualification and it is predicted that approximately 4,000 apprentices are required to be recruited each year for the next four to keep up with demand. The industry is constantly evolving and through the Confederation of Timber Industries (CTI) we are developing our core qualifications to ensure that they embrace latest and future requirements.

The supply chain is attracting investment in manufacturing and logistic capacity, developing new products and innovations in a variety of sectors and applications. If this growth is to be maintained in a rapidly changing economic and political environment, we need to work together with Government to ensure the right policy and market frameworks are developed.

The CTI was formed in 2016 to do just this, acting as an umbrella organisation across the Timber supply chain. With the support and leadership of the Timber Trade Federation (TTF), Builders Merchant Federation (BMF), British Woodworking Federation (BWF), and the Structural Timber Association (STA), as well as a network of individual companies and organisations, the CTI is lobbying to put the Timber Industries at the heart of the new industrial strategy.

The CTI will focus on several key themes to influence the development and expansion of the Timber supply chain: Sustainability; Value & Growth; Skills, Jobs and Training; and meeting our Housing needs. In these areas, we will work collaboratively to stimulate growth and productivity, providing pan-supply chain representation across the industry to ensure that timber is not just seen as a vital element of our industrial heritage, but that it remains a vital, dynamic part of our industrial future.

Timothy Roy Wakeman OBE

Chairman

Confederation of Timber Industries

Investing in Science, Research and Innovation



From wooden skyscrapers, the construction phenomenon of the 21st Century, through to continual improvement of pre-manufactured modular Integrated Building Components (such as windows, doorsets, staircases and roofing systems) and new engineered and even genetically modified materials, the timber sector has repeatedly demonstrated its credentials as an innovator.

The timber sector innovates in a variety of ways, working with Universities, organisations such as the Timber Research and Development Association (TRADA) and through internal endeavour. The Confederation of Timber Industries supports the view in the Green Paper that innovation is not just about breakthrough technologies. Effective adoption of technology and improvements in management and workforce skills are critical, as are innovating around ways of providing services. To better support an innovative culture, a balance must be struck between blue-sky and experimental (near-to-market). Experimental Research offers opportunity to draw in a broader range of businesses to engage in the process, support a more innovative culture in the supply chain and deliver more rapid results in terms of improving productivity.

According to a recent survey by the British Woodworking Federation, around three quarters of companies are not accessing any initiatives to support growth. Past industry initiatives have demonstrated that over emphasis on “blue-sky” research through academia has made timescales less practical and investment higher risk (when measured in terms of yielding actionable commercial results). Businesses do have long-term vision, but often combined with a two or three-year business plan that must deliver against thin margins and uncertain market conditions.

Identifying funding opportunities is a minefield and often ends up being a barrier to progress for many SMEs. Simplification is key to encouraging greater collaboration on technology transfer and helping businesses work more effectively with Research Institutions and Regional Groups.

Actions for the timber industry:

Establish a Timber Research and Innovation Council to co-ordinate, support and encourage businesses to innovate. The Council would be made up of industry representatives, Universities, research agencies (e.g. TRADA and the BRE) and the down-stream supply chain and focus on the development and commercialisation of innovation in timber within the UK.

Work prioritised through the council will include:

- Increasing value-added activity from the UK sector, including greater use of home grown timber
- Reducing onsite build costs through off-site factory production and modular construction to help improve the construction industry’s productivity index
- Improving the quality, durability and performance of timber products to support the delivery of world class healthy and sustainable buildings

Policy Asks:

- Prioritise through UK Research and Innovation (UKRI) simplification of funding routes and ensure clear points of contact for the Timber Research and Innovation Council.
- Simplify and expand the scope of R&D Tax Credits to support innovation in the widest sense and to embrace accreditation, testing and certification in support of raising quality and standards.
- Direct the new Industrial Strategy Challenge Fund to supporting experimental, near to market, research that can have an almost immediate effect on productivity, catalyse change, benefit a broader range of businesses and help established businesses to emerge as innovators.

Case Studies:

Edinburgh Napier University

In 2017 the development of the new Institute of Sustainable Construction laboratories (approx. £3 million investment) will be completed – this will have a strong emphasis on the timber and forest product sector.

The University has five major timber projects ongoing with the Construction Scotland Innovation Centre (CSIC) supporting new timber innovations in relation to building construction all of which are led by industry partners, these include:

- Advanced panels systems
- New modular construction
- Scotland's highest Cross-Laminated-Timber (CLT) building near Glasgow
- New cladding systems and treatments
- Hybrid – steel/timber systems

Developing skills

In a CTI survey in 2016, nearly half of all respondents identified a skills gap in technical disciplines that is constraining growth. This was further emphasised in recent surveys by the British Woodworking Federation and Structural Timber Association that identified the number one issue that is limiting productivity is the availability of skilled labour. This issue may be compounded by changes enforced through Brexit if migration of skilled workers creates a net out-flow.



Changes proposed in the Industrial Strategy go some way to alleviating concerns in the reform of the skills environment. Attention must now turn to the details of implementation. Addressing the poor targeting of careers advice is top priority and we await with interest announcements on the revitalised careers strategy, it is vital that this engages industry and provides easy entry points to support business groups in presenting clear information and facilitating the development of the National Curriculum by guiding businesses to provide practical lesson plans across the range of subjects that underpin relevance to and introduce careers on offer through the 15 Technical Routes.

Design and Technology is not an EBacc subject, but is a critical feed-in subject and has driven recruitment design-led manufacturing sectors such as timber – indeed it is one of the more critical subjects when focussing on productivity and supporting understanding of materials in addition to core skills such as problem solving and Computer Aided Design (CAD).

The decline in GCSE entries in this subject (from 440,000 in 2004 to just 185,279 in the last academic year) must be fundamentally reversed. Teacher recruitment in this discipline is also at an all-time low (and less than 50% of the target DfE set in 2016) making the subject unviable in an increasing number of schools. As part of any overhaul of the Technical Routes for education Design and Technology should have equal status with the sciences on the National Curriculum. Whilst the Timber industry depends on STEM subjects, there is a concern that too much emphasis on Maths and English is distorting the curriculum and undermining other traditional and creative subjects (fundamental to rounded growth). There remains support in the Devolved Nations through the Construction GCSE and Welsh Baccalaureate in the Built Environment - this is a good model to adapt for England too.

The apprenticeship model has been intrinsic to the historic success of the wood trades in the UK and is still seen as the principle route into the sector. Joinery, for example, boasts the highest ratio of apprentices in all the specialist construction trades. The trend remains positive - since 2011 the number of joinery apprentices employed has increased by around 30% (to 1,760). In terms of the wider wood trades the number rose by an impressive 20% last year to 8,550 apprentices. The CITB recently identified that the wood trades need an additional 3,850 apprentices each year in the next four to support anticipated demand.

There is a longstanding concern regarding wastage in the current system - many students are pressed into Diplomas that do not yield work ready individuals and do not create employment opportunities. The Technical Qualification route (T'Levels) may help to address this, but lessons must be learned from the inefficiency of the Trailblazer Apprenticeship process - there are also practical issues around the work experience elements. It is also important to recognise that industries do not always fit comfortably in one route. The timber supply chain sits across several – care must be taken to ensure that these are not silos, with flexibility and agility in delivery of the curriculum mirroring the fluidity of modern careers. Funding for T'Levels and Apprenticeships must be carefully reviewed as the changes take root - whilst existing proposals for funding bands in apprenticeships and diplomas do cover the cost of training, there needs to be recognition of any capital investment required to ensure our learning institutions are world-class and lack of funding does not disadvantage critical subjects.

To support progress, it is vital to address the inherent competition between schools and FE Colleges. Developing a focus for Technical Qualifications through a UCAS equivalent system is a priority that should focus on post 16 learners and ensure that, with the National Apprentice Service all training and apprenticeship opportunities are presented to all students without prejudice. This process should also support a “clearing” system to minimise wastage, recycle opportunity and support informed choice from candidates.

Academia also has a strong role to play to support sector specific innovation and the implementation of wider innovative solutions. The timber industry needs a constant flow of graduates in disciplines such as wood science, product design engineering, process engineering, mechanical and materials engineering as well as business, IT and logistical focussed subjects to support the digitalisation and ‘service-ification’ of manufacturing and

construction. There should be effective routes to this level both through the traditional academic and new Technical Routes. Every effort must be taken to ensure that the Technical Routes are not seen as the lesser option.

Actions for the Timber Industry

Establish a Timber Skills Council to focus on:

- Developing effective careers guidance to support the newly proposed careers services. This work should build upon existing initiatives such as Makeit Wood & Furniture (schools D&T competition), 'Adopt a School' (developed from the Hansford approach to building stronger links with Schools) and 'Wow I Made That!' (Apprentice Recruitment)
- Develop and present careers pathways to ensure careers journeys are mapped and linked to qualification and continuing professional development
- Ensure sector qualifications (across the technical and academic routes) are agile, flexible and aligned to support an evolving sector and delivering "work ready" individuals -where necessary establish working groups to review, upgrade and develop new qualifications
- Work with colleges, training providers and universities, building on existing Woodworking Centres of Excellence approach to ensure that the education and training providers are engaged with and supported by the sector
- Maintain a focus on training the trainer to ensure educators have current industry knowledge
- Look at international benchmarking to ensure the UK is world-class in developing timber skills
- Ensures timber companies of all sizes understand the value of training and are equipped to access the best possible support and all appropriate funding options
- Lead supply chain collaboration to support effective training up and down the supply chain and encourage a leaner approach to delivery

Policy Asks

- Design and Technology must be given EBacc status and parity of esteem with science.
- The Apprentice Levy should be ring-fenced to support training, but caution that it will be attractive for companies to divert vouchers towards degree and higher level apprentices, which could yield higher voucher utilisation than initial estimates and leave a funding gap
- To help drive productivity and efficiency of the voucher system, large employers should be able to use a greater percentage of Apprenticeship Levy funds to support training in their supply chains
- Consider carefully how FE sector can effectively access much needed capital investment to support training courses with requirement for technology and machinery
- Clarify as soon as possible confusion around provision of the new Apprenticeship Standards and Funding Allocations
- Ensure any new careers support is developed to engage industry, candidates and parents and that the services works with trade bodies to develop information and resources against a standard framework

- Consider financial incentives for work placements in industries where such placements are high-cost, in line with the £1,000 grant to encourage employers to take on a 16-18-year-old apprentice.
- A leaner, reformed CITB can support a more productive supply chain, Government must be vigilant to the potential negative impact of a void should CITB fail to gain consensus

Case Studies: Existing Schools engagement

The Industry has shown real enthusiasm for schools engagement through the 'Adopt a School' project that has been so effective in the South West. This is something that we would like to encourage throughout the UK. The CTI is keen to engage with any new careers infrastructure to support this direct engagement with schools.

The timber sector deliver advices through our 'Wow I Made That!' Apprentice Recruitment Campaign and The 'MakeIt Wood & Furniture' schools competition (targeted at years 9, 10 and 12). These are linked to 'Go Construct' and 'The National Apprentice Service' and are ready to be tailored to be developed and plugged into any resources required in support of the new comprehensive careers strategy proposed.

In addition to young starters, the timber industry is engaging in supporting a number of targeted careers switch projects (e.g. Buildforce, focussed on ex-servicemen).

Case Study: Woodworking and Shopfitting Centres of Excellence

To support Further Education provision The British Woodworking Federation and National Association of Shopfitters is working to develop Centres of Excellence across the UK and is currently running a pilot with three colleges and one private sector provider focussed on improving the interaction between colleges and industry. The aim is to ensure at least 10 Centres are developed to support businesses across the UK.

The project aims to develop a network of woodworking specialists across the UK, sharing best practice, encouraging a stronger regional network drawing companies and colleges closer together and helping colleges to commercialise elements of the current apprentice standards to develop a range of commercial upskilling courses. The network also aims to support careers fayres and college tutors by keeping them updated of current industry practice developing train the trainer initiatives and looking at, secondment and guest presentation options.

Case Study: Edinburgh Napier University

Edinburgh Napier have been working with the Scottish Offsite Hub, the Construction Scotland Innovation Centre and companies from across the UK to support skills and growth for the offsite sector in Scotland (which is 90% timber based in terms of house building). The project in 2017 was awarded the Scottish Enterprise Collaboration Prize.

Napier are shortly to launch the new MSc in Timber Architectural Design & Technology which has been developed in consultation with industry to help drive forward key skills and support sector growth via future specifications and also deliver higher building performance, low energy buildings and innovative timber architecture.

Upgrading Infrastructure

An infrastructure pipeline is critical to the delivery of an industrial strategy, with transport, housing and utilities all key.

It is important to recognise that simple solutions are often the best and consideration of forestry and the contribution that it can make to support investment in Natural Capital and flood defence should be considered.



The timber industries themselves, along with many other supply chains, rely heavily on smooth logistics to ensure the efficient functioning of their supply chains and “just in time” business models. This will be drastically impaired without investment in port and transport capacity. The smooth functioning could also be impaired from threats to our status within the Customs Union and Single Market.

We welcome focus on online capabilities, particularly due to the often-rural location of our members where connection can be a major issue and cost.

Actions for the timber industry:

- Support Confor in identifying key areas for local, commercial productive planting of forests, as well as planting areas key for strategic flood defence.
- Educate public procurement and contractor sector in the role of timber products in infrastructure development
- Work with the Freight Transport Association to lobby for the phased increase of port and road capacity

Policy Asks

- Mandate the measurement of socioeconomic value, the impact of jobs and long-term wealth creation in procurement decisions where public sector has influence

Supporting Businesses to Start and Grow

The UK timber industry directly employs 150,000 workers throughout the country. As well as delivering furniture, pallets and a vast array of other markets, the sector is helping to revolutionise construction through the development of offsite and pre-manufactured components.



Overall the construction products sector is five times the size of the automotive and twice the size of the aerospace sector in the UK. A concern with the Green Paper is that it zones in on these sectors – it contains 23 separate references to automotive and 18 references to aerospace – since the launch of the Green Paper, a further £610 million has been made available to aid the car manufacturing Industry through public sector grants, a more holistic view of manufacturing is fundamental to a balance Industrial Strategy.

Where sectors (e.g. timber) are SME led, reforms need to address the complexities of harnessing this fragmented network. Big ticket investment is attractive to government because of scale and publicity, but investing through SMEs allows a spread of risk and helps harness an entrepreneurial culture. The CTI stands ready to work with the new institutions defined in the paper to support improvement in productivity within the timber supply chain.

The Farmer report 'Modernise or Die' recognises that the construction industry needs to become radically more productive through greater use of offsite manufacture that can help to improve productivity, sustainability and health and safety in the construction industry. Timber offers a range of pre-manufactured components and offsite solutions that can be produced in the UK and there is existing capacity available (though the incorporation of night shifts and planned investment) to meet the need for quality affordable housing and help build the UK out of its housing crisis.

As the strategy identifies, investment is about more than access to funding, it is also about managing risk. A recent survey by the British Woodworking Federation cited confidence around Brexit and a more secure order book as the main factors that would drive fresh investment. This was closely followed by improved terms in supply chain T&C's. Fair Payment remains a fundamental issue in construction and whilst measures are being implemented, the timeframes are not ambitious enough – in an uncertain market, it is critical that supply chains are supported and risk shared appropriately (particularly where Government has a direct role in procurement). Throughout the Brexit process, it is beholden on Government to do all it can to minimise disruption to business and put in place reassurances that banks too share risk effectively with businesses in a potentially more erratic market-place.

The £13 million Productivity Council can scrutinise the productive elements within the economy and ensure that when looking at international comparison, a more granular approach is taken when comparing domestic manufacture with overseas competitors (international statistics are not always directly comparable due to differences in collection methodology). In this way a Sector Deals could be more effectively targeted and supported.

Productivity is also impacted by the cost of doing business, the cost of compliance and factors such as rent and Business Rates, which in some parts of the country have been subject to rapid inflation. This is often where unfairness is evident in the existing system and ineffective or ill-equipped enforcement of regulation creates an unlevel playing field (this is recognised in a recent survey by the BWF whose respondents noted that a key area of improvement for government was around enforcement of existing regulation to help stamp out unfair competition).

Taxation is a core part of the relationship industry has with Government and needs review. The Industrial Strategy paper falls short of calling for a fundamental tax reform that embraces Business Rates. As margins tighten and profitability falls, corporation tax reform becomes less significant and employment tax, national insurance, business rates and rising Insurance Premium Tax all take a toll. Where these can be offset by R&D Tax credits and other forms of capital allowance, the system is often overly complicated and our army of SMEs fail to benefit due to the lack of specialist support and time available. A productive economy needs a productive taxation system that rewards positive behaviour and encourages UK Trade Gain (a combination of growing exports and winning share back from importers of finished manufactured products).

The current Business Rates system discourages investment and undermines productivity – it is no longer fit for purpose and needs rapid reform. A balance of 20% of respondents to the BWF survey reported that business rates for their current property would increase because of the recent revaluations, with 32% of respondents indicating that their rates would increase by over 5% - this is exacerbated by rapidly rising rental fees. By way of example,

one £1.5 million turnover business calculated that the company's business rates for the year are £29,512.00, 34% of their rent which stands at £86,250 per annum (and close to 20 times that of yearly council tax for a 4-bedroom semi-detached house in the same area).

Benchmarking is critical – through the strategy productivity needs a more precise in-business measurement – the current starting point is not as clear in the strategy as it needs to be. CTI can and will look at how companies in the sector can define and measure productivity, but a standard measure to allow benchmarking between parts of the economy would be useful.

Actions for the timber industry:

- Work with the newly formed Productivity Council to establish a Productivity Index to benchmark elements of the supply chain and highlight areas of waste – this can be built from existing work on Environmental Product Declarations that will support more widespread use
- Work with the supply chain to optimise the opportunities presented through Building Information Modelling and digitalisation to streamline exchange of data and measurement of process
- Work through the Off-site hub to help realise the potential of timber frame, Cross-Laminated-Timber (CLT) and other forms of modular construction for the UK economy
- Establish a productivity taskforce and consider a mentoring scheme to support leadership and improvements in the supply chain

Policy Asks:

- Ensure that the Productivity Council is a transparent organisation that works closely with trade bodies to measure productivity and ensure that efforts are fairly distributed across the economy and impacts recorded and rewarded
- Put in place (possibly through the British Business Bank) a formal process for companies to appeal should a financial institution refuse or withdraw funding
- Ensure enforcement organisations resourced to effectively create a level playing field and prevent unfair competition for legitimate businesses
- Overhaul the taxation structure driving efficiency through simplification, offering consider tax breaks to start-ups who employ more than one person (or similar measure to avoid abuse through disguised employment) and extend capital allowances for plant and machinery investment
- Address fair payment issues in a more realistic timeframe by ensuring that no more public sector contracts are awarded to contractors who endemically starve the supply chain of vital cash

Improving Procurement

The fact that the public sector spends directly approximately £268 billion per year, equivalent to 14 per cent of GDP is well made. It is also true to say that Public Sector influence extends well beyond this direct spend.



Perennial underinvestment by the public sector in our natural capital and heritage undermines productivity. It is vital that the right conditions are created to put UK

supply chains in the strongest possible position to compete for contracts based on best value for the taxpayer. This is exemplified in Welsh Procurement where their policy states:

“Value for Money should be considered as the optimum combination of whole-of-life costs in terms of not only generating efficiency savings and good quality outcomes for the organisation, but also benefit to society, the economy, and the environment, both now and in the future.”

Timber and timber products are critical elements in building new physical infrastructure and their role could be enhanced with greater knowledge in the public procurement arena. The Steel Charter helps to do this for Steel and an equivalent should be developed for all materials.

Actions for the timber industry:

The timber industry is well positioned through the Timber Trade Federation to provide information and advice to the trade on a range of topics covering the responsible sourcing of legal and sustainable timber and certified products including Certification, Chain of Custody, Third Party Schemes (including GFTN), FLEGT, CITES, EUTR, and the Lacey Act. The TTF is offering free procurement training for timber products to all public and private sector procurement departments.

The timber supply chain is embracing the fundamentals of Building Information Modelling (BIM) and the digitalisation of supply to support quality specification and exchange of vital information related to installation and maintenance. A planned Timber BIM Taskgroup will help to drive this forward.

In terms of digitalisation there is considerable opportunity to improved application of E-commerce. Modern product configurators can drive the whole supply chain and add considerably to the productivity index linking the whole process from design of building through to the factory floor and delivery of end-product through a stream less ERP system.

Through a combination of fully finished pre-manufactured components and offsite construction (based on manufacturing rather than site tolerances), the timber industry is working to improve efficiency in the supply chain and improve quality, productivity and sustainability in construction.

Policy Asks

- Position public sector as an exemplar client and Develop a Timber Charter similar to the Steel Charter
- Through a “Balance Scorecard Approach” mandate the measurement of socioeconomic value (based on whole life costs), the impact of jobs and long-term wealth creation in procurement decisions where public sector has influence
- Simplify Pre-Purchase Questionnaires for public sector contracts and ensure local and national governments use one common process to minimise work for manufacturers and specialist contractors.
- Promote offers of free timber procurement training via the TTF to national and local government

Encouraging trade and Inward Investment



The timber industry is a truly global player and has significant global responsibility in managing natural capital and helping meet climate change commitments.

Sweden remains one of the main suppliers of timber to the UK (delivering in the most part species that could not be replaced by home grown alternatives). Sweden's National Board of Trade [published a report](#) summarising potential likely options for trade procedures between the EU and the UK. The report concludes that it is likely that any alternative situation negotiated will be less favourable than the current, with increased administrative requirements, higher costs and 'reduced predictability in the flow of goods'. This is concerning, Brexit negotiations must endeavour avoid such complexities.

The transition from an EU regulatory environment is also critical and careful consultation is required with industry to look at the detail of regulation following the Great Repeal Bill. Principles and practice of EU Timber Regulations and Timber Procurement Policy should be protected and enforced in a post Brexit Britain as they support and enhance the reputation of our supply chain. Conversely the Construction Products Regulation, while working well to regulate the supply and uphold the quality of simple manufactured product (eg Plywood) has been inefficient and inept in implementation in key sectors where further installation is required (e.g. Fire Doors where the standards being imposed are not equivalent to working-practice in the UK). Furthermore, Trading Standards have never been resourced to enforce the regulation, making compliance patchy – once the UK exits the EU, compliance should revert to a voluntary status (as per the Construction Products Directive that it replaced) or a better regulatory framework should be developed.

Actions for the timber industry:

The timber sector can show a very positive picture of open trade with nations across the globe, based on a common set of principles and regulatory regime. The industry has already begun meeting with ministers and civil servants from key government departments (e.g. Defra, BEIS and DfID) about potential impacts to the timber trade.

The TTF, one of the founders of the CTI is perhaps the most active timber trade body globally and has developed strong links with government officials and policy makers in territories around the world. Efforts will be made to leverage these relationships and support a more expansive approach to export from the timber products manufacturing sector.

Policy Asks:

- Drive simplicity through trade negotiations to retain the most robust, yet effective regulatory regime
- Avoid at all costs hard borders within the existing United Kingdom
- Ensure that any international competition is on a level playing field and where standards and regulations are in place they are effectively policed so as not to undermine UK Manufacturing
- Look to unpick ill-targeted legislation (e.g. the Construction Products Regulation) to ensure manufacturers are not burdened with unnecessary and ill-targeted costs

Delivering affordable energy and clean growth



Trees absorb and store billions of tonnes of carbon every day and all the products derived from wood - such as walls, windows, floors, doors, paper, desks and many more - keep on storing carbon throughout their lifetime.

Studies show that more emissions are captured and stored in timber products than are emitted during harvesting, processing, manufacturing and transportation combined. For every metre cube of timber used across the supply chain, roughly one tonne of carbon is stored. That makes timber the only truly sustainable mainstream construction material. If we built 200,000 new houses in timber, we would store around 4 million tonnes of carbon dioxide every year!

There is sensible talk within the Industrial Strategy on “delivering affordable energy and clean growth” and investment in low-carbon energy supply, but it is silent on how we can reduce industrial energy usage, it also fails to address how we can reduce the carbon embodied in our processes and products. Timber products are manufactured in low energy processes, by comparison, competing alternative products are often high energy users – the Chlorine production facility in Runcorn (used to extract Chlorine feedstock for PVC manufacture) annually uses energy equivalent to the nearby city of Liverpool.

The Industrial Strategy must put sustainability front and centre in improving construction productivity by reducing the cost of construction. Reducing environmental impacts across construction makes economic and environmental sense – from reducing waste on-site and the cost of building, to the industry’s carbon footprint and energy bills for consumers.

Also intrinsic to success is ensuring that we value the natural environment and consider seriously the recommendations of the Natural Capital Committee. This is about sustainability and climate change, but it is about projecting our status and meeting our responsibility as a world leader, protecting our energy supply and preserving our natural assets.

Actions for the timber industry:

The timber industry already leading the way in publishing Environmental Product Declarations as the first customer of the BRE’s ground-breaking LINA tool that supports sustainable choice of product.

This stands the timber industry in a strong position to develop and implement a Circular Economy Action Plan to support sustainable procurement in construction.

Policy Asks:

- Look at methods to reward low energy manufacturing through taxation breaks
- Ensure all building projects consider and publish full carbon impact, favouring the use of natural renewable materials
- Recognise and reward timber trade's crucial role in maintaining and expanding forest cover at home and abroad
- Technical education in the UK should mainstream environmental sustainability across the curriculum, embedding an understanding of this and how it can contribute to productivity into future working practices

Case Study: Edinburgh Napier University

The University has been heavily engaged in the forthcoming South East Scotland City and Regional Deal – which aligns with regional need, future infrastructure, regional DNA skills and companies for Digital Futures and Housing.

Approximately half of the projected spend will be on housing – over next 20 years Scotland's population will increase by 9%, however Edinburgh will increase by 21%. We will need to build 45% more homes than we have ever built before in a previous 20-year period – estimated to be 145,000 homes. Timber based construction systems are the most likely for many of the sites focusing on low energy, low carbon and quality of life. 15 major sites and 140 smaller sites in the South East region have been identified. An announcement on the full details of this package is expected in May after the local elections.

Case Study: Making Environmental Product Declarations Mainstream

Joinery manufacturers and woodworking firms promoting their timber products within the UK construction industry can now obtain life cycle assessments for free via the British Woodworking Federation (BWF). The important new service for BWF members comes as a result of BWF becoming the first customer worldwide for the BRE's new environmental products calculator LINA. BRE LINA allows the BWF to produce life cycle assessment results for its members' products which are then uploaded into the BRE Hub so that a third party verified BRE Global Environmental Performance Declaration (EPD) can be produced.

The results can also inform assessments for ISO 14001, EN 15804 (the European standard for the sustainability of construction products) and other environmental management systems, and can feed into BIM (Building Information Modelling).

Dr Shamir Ghumra, BRE's associate director of sustainable products said:

"The BWF has shown tremendous leadership and vision by becoming the first organisation in the world to adopt LINA. The BWF has a broad membership which includes many SMEs, this initiative will allow BWF members to generate life cycle assessment results in a more efficient and cost effective manner than ever before.

"There is a growing need for better product data through verified Environmental Product Declarations. LINA is a pre-verified tool making the verification process quicker for BWF members. Other organisations will follow the trail that BWF have laid down and we very much look forward to working with BWF to further promote the use of life cycle assessment and EPDs in the sector. Better data will lead to better outcomes."

Cultivating world-leading sectors

Due to many of the reasons already documented in this response, the timber industry in the UK is a productive sector that has significant potential to support an evolving industrial economy in the UK.



Actions for the timber industry:

By setting down this document, the CTI is already starting to look at the potential to upgrade through a "Sector Deal". In many senses the creation of the CTI is the first step, providing businesses in the timber supply chain to create a platform to collaborate and

organise behind strong leadership and opportunity to engage with the Challenger Panel Program.

Policy Asks:

Work with the CTI to ensure a clear productivity plan is implemented to support growth of the timber sector in the UK

Driving growth across the whole country

The fragmented nature of the timber supply chain ensures that businesses are operating in every constituency across the UK, creating jobs and wealth in local and often rural communities.



STANDARD INDUSTRIAL CLASSIFICATION (UK SIC 2007) DIVISION by REGION by EMPLOYMENT SIZE BAND									
	Employment size								TOTAL
	0 - 4	5 - 9	10 - 19	20 - 49	50 - 99	100 - 249	250 - 499	500 +	
16 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials									
North East	165	35	30	25	10	5	0	0	270
North West	615	135	95	50	10	10	0	0	915
Yorkshire and The Humber	485	105	85	55	20	5	0	5	760
East Midlands	410	95	80	55	15	5	0	0	660
West Midlands	415	135	70	55	20	5	0	0	700
East	505	145	85	40	10	5	0	0	790
London	255	60	40	10	5	0	0	0	370
South East	630	180	100	55	10	0	0	0	975
South West	485	170	80	30	10	0	0	0	775
Wales	240	65	35	25	10	5	0	0	380
Scotland	435	105	70	55	20	10	0	0	695
Northern Ireland	190	60	40	10	5	0	5	0	310
TOTAL	4,830	1,290	810	465	145	50	5	5	7,600

Offsite construction and pre-manufacturing value added construction elements (such as windows, staircases and doorsets) helps to support a regional approach to growth and offset any regional bias in construction trends.

Relatively low capital investment also supports an entrepreneurial spirit often based on core technical skills.

Actions for the timber industry:

Use Centres of Excellence developed to support skills to lead local supply chain partnerships focused on core skills and embracing innovation. Look to help members engage wider local initiatives, develop supply chain partnerships and replicate successful projects across the UK.

Policy Asks:

- Ensure transparency, consistency and simplicity in supporting local initiatives with as little administrative and bureaucracy cost as possible.

Creating the right institutions to bring together sectors and places

BWF is currently mapping skills demands in key areas and will be looking at the skills pipeline; this can support a Regional Approach to deliver spearheaded through regional networks in the core trade associations, led by local business leaders from the timber sector.



Actions for the timber industry:

Target Regional Groups to develop regional growth plans based on a template produced by the Confederation of Timber Industries

Through these networks ensure the timber industry is well placed to engage with local leadership and financial institutions

Policy Asks:

Clear Regional Growth plans need to reflect a focus on supporting regional businesses and optimising the regional supply chain, pushing for socioeconomic contribution in terms of jobs and wealth creation and sustainability/healthy manufacture in the area to be rewarded (possibly through business rates)

APPENDIX: For reference: Questions in the consultation document

1. Does this document identify the right areas of focus: extending our strengths; closing the gaps; and making the UK one of the most competitive places to start or grow a business?
2. Are the ten pillars suggested the right ones to tackle low productivity and unbalanced growth? If not, which areas are missing?
3. Are the right central government and local institutions in place to deliver an effective industrial strategy? If not, how should they be reformed? Are the types of measures to strengthen local institutions set out here and below the right ones?
4. Are there important lessons we can learn from the industrial policies of other countries which are not reflected in these ten pillars?
5. What should be the priority areas for science, research and innovation investment?
6. Which challenge areas should the Industrial Challenge Strategy Fund focus on to drive maximum economic impact?
7. What else can the UK do to create an environment that supports the commercialisation of ideas?
8. How can we best support the next generation of research leaders and entrepreneurs?
9. How can we best support research and innovation strengths in local areas?
10. What more can we do to improve basic skills? How can we make a success of the new transition year? Should we change the way that those resitting basic qualifications study, to focus more on basic skills excellence?
11. Do you agree with the different elements of the vision for the new technical education system set out here? Are there further lessons from other countries' systems?
12. How can we make the application process for further education colleges and apprenticeships clearer and simpler, drawing lessons from the higher education sector?
13. What skills shortages do we have or expect to have, in particular sectors or local areas, and how can we link the skills needs of industry to skills provision by educational institutions in local areas?
14. How can we enable and encourage people to retrain and upskill throughout their working lives, particularly in places where industries are changing or declining? Are there particular sectors where this could be appropriate?
15. Are there further actions we could take to support private investment in infrastructure?
16. How can local infrastructure needs be incorporated within national UK infrastructure policy most effectively?
17. What further actions can we take to improve the performance of infrastructure towards international benchmarks? How can government work with industry to ensure we have the skills and supply chain needed to deliver strategic infrastructure in the UK?

18. What are the most important causes of lower rates of fixed capital investment in the UK compared to other countries, and how can they be addressed?
19. What are the most important factors which constrain quoted companies and fund managers from making longer term investment decisions, and how can we best address these factors?
20. Given public sector investment already accounts for a large share of equity deals in some regions, how can we best catalyse uptake of equity capital outside the South East?
21. How can we drive the adoption of new funding opportunities like crowdfunding across the country?
22. What are the barriers faced by those businesses that have the potential to scale-up and achieve greater growth, and how can we address these barriers? Where are the outstanding examples of business networks for fast growing firms which we could learn from or spread?
23. Are there further steps that the Government can take to support innovation through public procurement?
24. What further steps can be taken to use public procurement to drive the industrial strategy in areas where government is the main client, such as healthcare and defence? Do we have the right institutions and policies in place in these sectors to exploit government's purchasing power to drive economic growth?
25. What can the Government do to improve our support for firms wanting to start exporting? What can the Government do to improve support for firms in increasing their exports?
26. What can we learn from other countries to improve our support for inward investment and how we measure its success? Should we put more emphasis on measuring the impact of Foreign Direct Investment (FDI) on growth?
27. What are the most important steps the Government should take to limit energy costs over the long-term?
28. How can we move towards a position in which energy is supplied by competitive markets without the requirement for on-going subsidy?
29. How can the Government, business and researchers work together to develop the competitive opportunities from innovation in energy and our existing industrial strengths?
30. How can the Government support businesses in realising cost savings through greater resource and energy efficiency?
31. How can the Government and industry help sectors come together to identify the opportunities for a 'sector deal' to address – especially where industries are fragmented or not well defined?
32. How can the Government ensure that 'sector deals' promote competition and incorporate the interests of new entrants?
33. How can the Government and industry collaborate to enable growth in new sectors of the future that emerge around new technologies and new business models?

34. Do you agree the principles set out above are the right ones? If not what is missing?
35. What are the most important new approaches to raising skill levels in areas where they are lower? Where could investments in connectivity or innovation do most to help encourage growth across the country?
36. Recognising the need for local initiative and leadership, how should we best work with local areas to create and strengthen key local institutions?
37. What are the most important institutions which we need to upgrade or support to back growth in particular areas?
38. Are there institutions missing in certain areas which we could help create or strengthen to support local growth?