

## Regular Intelligence Supplementary Information – V1. Theme 4 – Green Economy, the Construction Sector View Stakeholder Challenges and Recommendations

### Purpose & Contents

This document supplements the CEWales Regular Intelligence Report – Theme 4 – Green Economy, the Construction Sector View issued to the Welsh Government in keeping with CEWales commitments to provide real-time market intelligence.

It provides further context and details around shared stakeholder challenges and recommendations.

[Sector Stakeholder Challenges](#)

[Sector Stakeholder Recommendations](#)

### Sector Stakeholder Challenges

*Relevant to Section 2. of the CEWales Regular Intelligence Report – Theme 4 Issue.*

The Green Economy is a prime opportunity to demonstrate the importance of the built environment and its connected impact.

- 1. Strategic Vision and Sectoral Ambition** – Tier 1 & 2 consultants and contractors repeated the need for stronger leadership through a unified sectoral vision which sets strategic intent and informs enabling conditions. This was also captured in the recent *CEWales insight reports on Public Sector Procurement, MMC and Offshore Wind – Translating the opportunity for the Built environment* produced for the Welsh Government. Utilising leadership levers such as legislative mandates and policy notes, procurement, frameworks, contracts, risk and insurance were suggested to move faster on ‘green (environmental & social)’ economic indicators as part of building forwards towards an efficiency and productivity led industrialised narrative. Challenges around planning delays and building regulations were discussed. Suggestions included a similar approach to the place-based [UK Industrial Strategy](#) and the Scottish Government led [Green Industrial Strategy](#). Ngo’s and industry bodies operating in this space have acknowledged the current risk adverse, and cautious approach to embracing “green growth” by the sector, referencing existing fragmented sector characteristics. The majority SME landscape noted that the sector, without permission or stimulation from the Welsh Government are reluctant to lead the way. Limited margins, contractual exposure, “business as usual”, risk appetite, confidence in supply chain, inconsistencies in measuring and assessing ‘green economy factors’ in planning for example, and lack of relevant skills appear to be fundamental challenges impacting sectors response to the green economy.
- 2. Client readiness and sector awareness** - SME’s have identified challenges around the use of ‘buzz words’ that are either not defined or remain at high level, such as the understanding around ‘Green Economy’ and how these connect to ‘Net Zero’, ‘Just Transitions, Circular Economy’. Academics from Welsh Universities also differ in their approaches with some understanding the definition of the green economy as ‘encompassing low carbon, resource efficient and socially inclusive economic activities, infrastructure and assets to allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services, and therefore addressed by decarbonization



and circular economy'. From insight, the sector is not clear what this means for the context of Wales and struggles to drive its' intent into the precision required to deliver projects. Further, public sector client readiness in this area appears to be lacking comprising unexplored potential to develop both leadership knowledge and capabilities that inform the requirements within procurement, frameworks and contracts in a consistent, measurable format. This is relevant for planning authorities and building control approvals that are under significant pressure and need support in ensuring decisions factoring in a green economy are joined-up, consistent and reflective of local needs. Other challenges informing readiness and awareness includes, the lack of regulation of embodied carbon which is considered a key barrier to the industry-wide support of bio-based and low carbon construction materials. Without regulation it will only be the industry leaders that pursue these important transformational materials and approaches. Regulation is already in place in many countries on the continent, demonstrating that it can be done now with the current knowledge and skill set without up-ending the industry. Wales have begun leadership with the innovative [Sustainable Communities for Learning Programme](#) linking funding to embodied carbon, but this is still only a portion of the industry. Further, the lack of transparent, trustworthy, and available data for fire certification is a major industry barrier when trying to use less common and bio-based materials. There remains a lot of misunderstanding by brokers who do not understand the timber industry comprehensively. Building control is becoming more detailed in their analysis of project submissions and designers do not have access to the right data to continue to advocate for bio-based and low carbon construction materials. [Dataholz.eu](#) is an example of how two countries, Austria and Germany, addressed this, through supporting an open platform for sharing this data with the express objective of increasing the use of timber in construction. Local authorities acknowledge that actual behaviour, attitudinal change and impact is harder to validate. Smaller players and potential sub contractors are catching up but don't not have capacity for specialist in-house knowledge. There is an abundance of retrofit green energy solutions for council owned housing by knee-jerk reactions to air source, batteries and roof solar impacts this. Further challenges include that roof solar sometimes also means strengthening the roof to support PV panels. While there is the WPPN 06/12 in Wales which is a guide to help construction companies reduce their environmental impact, the inclusion of a CRP or equivalent is a requirement at the selection stage of the procurement of public contracts valued at £6 million or more. To simplify the CRP process for both buyers and suppliers the requirement to use the CRP template as it appears on the Gov.UK PPN 06/21 webpage is strongly recommended. They are a required question within all Welsh Frameworks, holding companies accountable for their carbon footprints. It still is just a shift, making the implementation CRP not just a moral imperative but a strategic necessity for businesses. The WPPN 06/21 recommends that Welsh public sector bodies use their discretion to require CRPs for contracts over £6 million that are in high emission categories. The WPPN 06/21 also recommends using the CRP template to make it easier for contracting authorities to check and approve the plan. For contracts below £6m WPS bodies are strongly advised to take a risk-based assessment and use their discretion to apply a CRP requirement to contracts in high emission categories. The key sectors with the largest estimated emissions for the public sector in Wales are Manufacturing, Construction, Transportation and Human Health and Social Work activities. The UK gov policies such as PPN06/21 and the NHS Evergreen (also referred to as Evergreen NHS Supplier Assessment) mandate CRPs for companies seeking government contracts. Compliance with such regulations is becoming a prerequisite for doing business, but the issue is there is no standardised benchmark or globally accepted baseline matrix as to what good looks like and clients ask for different ways for companies to demonstrate it, proving onerous in time and therefore cost on the contractors (esp. our SME's). An approach that unifies the sector in areas where confidence is building is necessary. In a sector tight on margins, SME's require a set of common indicators, greater emphasis and consistency in

measuring outcomes attributed to these areas within work winning and suggest a pan Wales approach, some refer to a Pan Wales framework given the size of Wales, for cross-cutting aspects pertaining to Welsh net zero, Material Efficiencies, Social Value and Well-being within the green economy umbrella. Local authorities acknowledge there is an assumption that green approach is more expensive, e.g. air source/ground source heating, solar generation, and accompanying battery storage, the challenge therefore is to manage spend and expectation. A further challenge is to ensure that smaller and more local construction companies do not miss out on the green construction shift, especially as they do not have the resources to invest in specialist teams. An approach that includes them in growth opportunities despite this should be considered. Opportunities are considerable for: innovation, agile refurb, skills development, and better carbon/green impact measuring and reporting.

- 3. Capability and Skills** – The necessary shift to a green economy deepens the existing knowledge and skills gap derived from factors including but not limited to a lack of new and diverse entrants attracted to the sector, an ageing workforce and the significant proportion who have left to join more lucrative fields. This is impacting not just the built environment but cross-sectors such as energy and manufacturing. Drivers such as net zero, circular economy, AI(digital), safety are widening the gap and creating an urgent need for new skills. Tier 1 and 2 consultants are aware of these challenges and identify the importance of upskilling staff from more traditional sectors (for example-transport, structures, fossil fuels) to expanding sectors (for example-renewable energy, sustainable mobility, Modern Methods of using regenerative materials / Industrialisation). These businesses identify hiring limitations and pre-requisite shortages as a result of missing relevant ‘green skills’ which creates a mismatch in supply and demand of green jobs (for example, in heat pump installers, net zero energy, building fabric trades for retrofit, Passivhaus certified designers and more). Further, Tier 1 & 2 contractors and consultants address the economic realities of such a transformation for businesses and repeatedly call for more visibility of pipelines and a move to value-based procurement away from low cost to stimulate the necessary changes needed to adopt sustainable construction techniques, circular processes inclusive of zero waste closed loops, and use of regenerative materials which offer significant co-benefits and are key areas to develop new skills and new jobs. However currently costs associated with these remain high and uncertainties in the burden of risk, warranties and insurance (associated to the use of bio-based materials, timber for example) add to the wider challenge. SME’s too, as the backbone to the construction sector in Wales, champion a value-based quality approach that emphasises local industry and local skills but need this to be measured and assessed in a consistent way across public sector clients. SME’s require significant support in the transition to ‘green skills’ where time and money remains a key concern. Local authorities acknowledge this includes identifying what these ‘green skills’ are locally for the sector and their use-cases in best practice case-studies unique to Wales. This is especially relevant to ensure training provided is fit for purpose and led by evidence in an evolving sector. Academia expands the challenge into education for green careers in the sector where [sustainability qualifications such as the WJEC](#) are desirable. Industry bodies champion a green skills ecosystem to feed talent through accelerated pathways and bridge the gap at speed. Importantly challenges related to capability and skills sit across different levels encompassing clients, company directors, workers and those who assess project applications. The skills challenge therefore needs to address perception barriers as well as create environments for leadership both within government and industry, upskill.
- 4. Shared Understandings and Cross-Sector Collaboration** – Sector characteristics across the stakeholder value chains such as fragmentation and silo’d working are restricting the potential for a well-connected green economy. Insight from Tier 1’s,2’s and SME’s identify a lack of shared understanding within the sector itself and across into other sectors made more



challenging by pipeline visibility challenges. Translating opportunities for the built environment derived across the International, UK and Welsh markets is necessary to not just ensure current sectoral response but also better plan for the future and identify localised competitive advantage for Wales, attracting investments and improving export quality. For example, built environment has a significant role to play in supporting focus on renewables such as offshore wind, hydrogen, tidal and carbon capture technologies within oceans/water bodies. Similarly, the built environment is important for other supporting sectors such as agriculture (sheep wool, seaweed, timber, low carbon steel) where links for innovation to support a green economy are necessary and currently missing. Academia in Wales through CEIC for example and industry bodies such as CEWales are starting to make connections however, the focus on more integrated solutions that can help solve multiple challenges is limited where either the scope is ill-defined or the method of engagement not conducive. This is particularly relevant to nature-based solutions. SME's are challenged for time and need funded support in building collaborative ideas and partnerships. Local authorities have significant pressures to deliver large programmes in short time frames and acknowledge the importance of long-term funding in building meaningful relationships as well as sectoral feedback loops. Together the sector calls for joint partnerships (public and private) similar to the Fit 4 Offshore Renewables (F4OR) programme in Wales that adopts an integrated view to the green economy. Early stage decision-making and design development is an area of focus where in certain limited areas, the sector is grasping the drive towards a greener economy. However, traditionally minded managers who are still in design can make this slower. Dealing with perceptions and traditional behaviours is a critical factor in addressing shared understandings and building meaningful collaboration. More needs to be done to address these intangible issues that often have a long-term impact on the reality of the sector.

## Sector Stakeholder Recommendations

*Relevant to Section 4. of the CEWales Regular Intelligence Report – Theme 4 issue.*

Key patterns were identified within stakeholder recommendations. These are shared below:

- Need for clearer leadership via a unified sectoral vision which connects policy areas and addresses the green economy across enabling levers; procurement, framework requirements, contract, risk, downstream of which sits planning and building control. Recommendation for Welsh Government to develop a built environment/construction sector strategy which connects key policy and legislative drivers informing the green economy. Addressing the understanding that a green economy is not a subset of the economy, rather as defined by [UNEP](#), it is one which is low carbon, resource efficient and socially inclusive where growth is consistent with sustainable development. The strategy should include sector relevant factors for net zero, just transitions, renewables, WBFGA, material efficiency and innovation across regenerative and other low carbon materials - to set principles and intended outcomes with sectoral involvement. CEWales announced its' recent [Annual Report Building for Future Generations](#), that a Sector Policy Statement/Action Plan will be undertaken to this effect with a Welsh representation of the Construction Playbook to follow. Sector champions this as a necessary step forward in moving the dial on clear governmental ambitions for the built environment in Wales.
- Need for detailed definition of green economy and green growth inclusive of multi-functional co-benefits and connected sector efficiencies. Recommendation for Welsh Government to define and explore Green Economy and Green Growth in the context of a Welsh Industrial Plan informed by pilot studies and pathfinders. 'Green Economy' is perceived as an ambiguous term which causes confusion as it captures several critical factors impacting the built environment and influenced also by other sectors; manufacturing, energy, agriculture, financial and others. Building on the place-[based UK industrial strategy](#) and similar to the [Scottish Green Industrial Strategy](#), will ensure that the definition and understanding of a green economy is inclusive and reflective of its connected impact and co-benefits. These co benefits include linking health and well-being improvements to the built environment. This incorporates bio-based low carbon construction materials using research data on built buildings to demonstrate improved environments for building users, further captured in this research document, [well-being through building with sustainable materials](#). Using approved body certifications such as IEMA can assist in the development of sectoral awareness including signing up to declarations such as Net Zero 2050, SBTi and using digital approaches to monitor efficiencies such as the Smart Waste Tracker by BRE or the OneClick LCA to analyse embodied carbon using EPD's. From a business perspective, learning how to speak of the benefits for example, 'circular economy principles means not relying on virgin materials for cost saving and time efficiency' – can help move the dial faster. This approach should encompass the publicising of case studies and initiatives that are seen as delivering on governmental green economy targets and emphasising 'what good looks like' across areas of success where momentum is building within sector. These include continuing to prioritise bio-base materials as a starting point for sector projects using LCA data to demonstrate carbon benefits, leveraging powerful in-use operational data to demonstrate the life-long operational saving from adopting industry-recognised construction standards such as Passivhaus, supporting the next generation with university lecturing, site visits and mentoring. To ensure the uptake of materials such as timber, address fire safety and durability concerns to safely expand the use of engineered mass timber. Increase collaboration with insurers, lenders and warranty providers, concerns are more on engineered mass timber and volumetric timber systems, Insurers' concerns go beyond life



safety objectives to touch upon the wider impact on the buildings damage and length of time to restore business function following an insurable event. Sector brokers are working with the Structural Timber Association (STA) and some have had recognition by insurers that if Clients, Contractor, Developers adhere to the STA's 16 Steps , Fire separation guidelines among other Mitigating circumstances then insurers are more comfortable with Timber. Examples where Welsh Government is leading the way, includes the [Sustainability Schools Challenge](#). The [new pattern book for social rent homes](#) is another good example which also supports the potential for the digital economy in Wales where pilot digital approaches can be identified utilising the standardisation opportunities created by the pattern approach. Further, the [Business Wales Green Economy website](#) is a useful portal to not only champion built environment examples but also demonstrate cross-industrial linkages. Together such initiatives could lead to the identification of a common set of outcomes-based success indicators demonstrating what a green economy looks like and is measured against. This can be fed into procurement and frameworks, also utilised downstream by local authorities, planning authorities and building control in ensuring consistency and accountability for a Pan Wales approach furthered by cross-levers such as undertaking a targeted Planning Policy Wales updates similar to the recent [Green Infrastructure Update](#).

- Need to build capability and skills for SME's which are key to the sector. Recommendation for Welsh Government to adopt a long-term financial lens, seek and source greater financial support for local SME's and supply chains, especially beyond the early stages, in transitioning efficiently and justly to the green economy while also responding to the digital requirement (golden thread, passports, cyber security and accessibility interoperability) identified within the Building Safety Act. The recent support from Development Bank for Wales was captured in their [consultation response for the Green Economy](#). It identified the Green Business Loan Scheme which was considered a good example of the level of support needed. Building understanding and perceptions to help users is further necessary and the Green Homes Wales pilot scheme was noted to incentivise homeowners to make green and energy-efficient choices and support the market and skills. Other recommendations for innovative financing included Partnerships with British Business Bank and an arms length regional development body that brings external investment and acts as a stable system for investor confidence. Further recommendations included a green skills tax credit as an incentive for employers to develop the skills needed for net zero. For apprenticeships, suggestions included exploring targeted financial incentives for green apprenticeships which supported providers in identifying core green 'skills' for employers. The Green Growth Pledge Scheme was identified as a useful approach to offer support in exchange for meeting decarbonisation commitments. [CITB's Building Skills for Net Zero Wales](#) was mentioned with follow on support such as FIR Programme, Go Construct STEM Ambassadors and Industry Insight days acknowledged. Further, the substantial opportunity for the Welsh Government to work with local authorities and support innovative forms of finance for local decarbonisation projects was identified. Wales Centre for Public Policy identified examples of public-private partnership in a number of UK local authorities, including Bristol City Leap, Greater London Authority's Retrofit Accelerator - Workplaces (formerly RE:FIT), Greater Manchester Combined Authority's (GMCA) partnership with the Green Finance Institute, and Glasgow's Greenprint for Investment. This formed part of their response to the [Green Economy Consultation](#) and mentioned the importance of public funding in leveraging private investment at local authority level. Further to this, industry representatives identified efficiencies within planning specific to the retrofit agenda calling for retrofit coordinators, where currently there is a lack of abled workers. [MSC Scheme](#), [Green Home Grants](#), [LAD 2 schemes](#) are helpful for the market to operate at scale and gain benefit from economies of scale. A similar approach should be taken



across the border for homes, schools, hospitals and other buildings where end users are incentivised and educated also.

- Need to build cross industry partnerships to improve shared understandings and identify potential for cross-collaboration. Recommendation for Welsh Government to explore partnership potential across industry businesses, academia and sectoral bodies to create localised pathfinders and pilot projects which address enabling conditions beginning right from behaviours, mindsets and aim to address climate change challenges by translating research into real-world benefits. For example, the Transforming Homes Project, one of four Green Transition Ecosystems, part of the Future Observatory funded by the AHRC and delivered in partnership with the Design Museum comprising a diverse consortium located across South Wales, the South-West and South of the UK. It's research focus is on the 1.4 million 1920's to 1940s low rise council-built housing in the UK. Such co-projects do still have challenges such around involving residents, industry, practitioners, local authorities, community-led organisations and researchers working together to co-design the transformation of existing homes. Support in creating government led co-design toolkits of collaboration processes for such pilot schemes would not only provide local authorities with guidance but also those who run such collaborative schemes. This approach will help translate the opportunities for the built environment across public sector priority projects. Such projects could include renewable energy, net zero, regenerative material efficiencies and circular systems. CEWales Offshore Wind report previously shared with government, discusses the importance of this and highlights examples of awareness and capacity building through joint sector industry groups and partnerships such as the FLOVENTIS Fit 4 Programme, Governmental Innovation Missions, ORE Catapult's Driving Cross-Sector Innovation in Offshore Wind, Offshore Wind Evidence & Knowledge Hub (OWEKH) and Cross Government Climate Hub (CGCH).