

# Implementing Responsible Sourcing in the Architecture, Engineering and Construction Sector

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## **ABSTRACT**

The last decade has witnessed an urgency to adopt integrated and sustainable practices within construction manufacturing processes. With this in mind, this study examines individuals' experiences of the sector's uptake of BES6001 to determine the themes and propose methods to improve the process driving towards a sustainable future. Using a phenomenological methodology and a purposive sampling strategy of AEC industry professionals involved in the certification of products under the BES6001 framework, semi-structured interviews (n=6) were used to collect 'lived-experience' data. The key benefits of implementing include: (i) management belief, (ii) BES6001 provides automated, transparent, and accountable reporting and (iii) BES6001 provides assurance to stakeholders; whereas, the key barriers include: (i) the complexity and cost of administration of the assessment (ii) access for SMEs / small supply chain members is challenging and (iii) the perception of value. Based on the findings, the following recommendations are proposed: (i) there should be consultation and assessment of planned future revisions of the BES6001 standard, (ii) analysis of evidence production for the BES6001 accreditation, with a view to provide in-depth support to organisations – such as a guidance manual or similar and (iii) a clear and integrated approach to responsible sourcing should be explored, considering multiple third-party accreditations.

**Keywords:** Construction, UN SDG 12: Responsible consumption and production, Sustainability, Responsible sourcing, BES6001.

## 1. INTRODUCTION

The architecture, engineering, and construction (AEC) sector can aid the successful delivery of the United Nations (UN) 2030 Agenda for Sustainable Development, through its contributions towards the Sustainable Development Goals (SDGs) (United Nations, 2015; Mahamadu *et al.*, 2016; Horry *et al.*, 2022). The goals have onerous implications for all industries, but it has been noted that the AEC sector impacts many of the 17 SDGs (Russell *et al.*, 2018; Silva and Figueiredo, 2020). To support the SDGs, the AEC sector must address disparities surrounding traditional methods of procurement and processes, creating a multi-disciplinary coordinated approach (Tremblay *et al.*, 2020; Ball *et al.*, 2022).

Despite sustainable development being at the forefront of the global agenda, the issues to address within the AEC sector remain ubiquitous. Waste, recycling, re-use, and procurement of materials used in construction have the highest reported impact, yet the method(s) of reduction remains ambiguous (Glass, 2012). Processes linked with the success of the SDGs, include taxonomies such as sustainable construction, responsible sourcing, sustainable procurement, and green supply chain management (Monyane and Awuzie, 2017). Many organisations are, therefore, looking to realign processes and incorporate transparent working. These responsible behaviours are actively championed by governing bodies and stakeholders alike – with many clients demanding accountability through public reporting, auditing, and certification. Responsible sourcing is a system of ethical procurement, where resources are certified in terms of derivation. This is evidenced through an organisation’s procurement strategy, and materials are assessed based on their ethical, environmental, and organisational attributes.

BES6001 is a framework standard for the responsible sourcing of construction products. It enables organisations to demonstrate their product stewardship through detailed and insightful management of their products – from the point where the component materials are quarried and gathered, to their eventual manufacture and processing. The framework describes the organisational governance, supply chain management, and also environmental/social aspects, including stakeholder engagement

and labour practices, which must be addressed to ensure the responsible sourcing of construction products.

While many studies have gathered organisational insights into the opportunities and obstacles of implementing BES6001, chiefly through the adoption of questionnaires to collect data (Glass *et al.*, 2012; Young and Osmani, 2013; Ball *et al.*, 2022); to date, no studies have explored the ‘lived-experiences’ of achieving BES6001 certification. Therefore, the purpose of this study is to employ a phenomenological methodology to reveal the experiences of AEC experts involved in the attainment and management of BES6001 certificates. The article is structured into five main sections. Next is a brief review of literature to provide context for the research topic, followed by an outline of the research method, then a combined presentation and discussion of findings, and finally, the conclusions and recommendations.

## **2. BACKGROUND**

The AEC sector is responsible for delivering projects that define our landscapes, infrastructure, and modern life. It is acknowledged that construction specifically has a measurable impact on our environment, which is well publicised throughout the world (UNEP, 2022). The sectors’ associated processes contribute to carbon emissions, waste production, water use, and resource requirements (Czarnecki *et al.*, 2010). Although the sector has a significant environmental footprint, it remains a key contributor to the UK economy, with continued growth over the next two decades to meet mounting demand.

With a global shift in thinking, presenting issues with welfare, bribery, corruption, and the resource consumption of organisations throughout the sector, the industry must take steps to counter the impacts caused by heavy manufacturing and production. While change in the sector is well-documented, there remains a value-action gap (Guo *et al.*, 2016). Pomponi and Moncaster (2018)

echo this with their research on embodied carbon assessments for buildings, identifying that the method remains inconsistent and undefined. To address changing requirements, researchers are proposing a variety of solutions to support sustainable delivery. Simpson *et al.* (2020) have identified the role of construction professionals as “middle actors”. Through their knowledge acquisition, building professionals are developing technical skills to deliver sustainable construction, but remain mindful that action should be appropriate to protect their reputation. Multiple tools have also been presented to aid the shift toward sustainable construction including green supply chain management and responsible sourcing (Glass, 2011; Strandberg, 2019). Responsible sourcing is defined and demonstrated through ethical procurement processes indicating empathy for the environment and stakeholders and policymakers’ social and economic concerns. This process of procurement emphasises the interconnectivity of supply chains (Lambert and Cooper, 2000). Krause *et al.* (2009) also stressed the importance of supply chains, noting that an organisation must have an entirely sustainable supply chain to claim sustainable practice.

Various previous studies have ascertained the benefits of responsible sourcing to AEC organisations. These include environmental benefits, such as the reduction of waste and resource use (Jiao *et al.*, 2013), and economic benefits such as cost savings, risk mitigation, and quality management (Christopher and Peck, 2004; Revell and Blackburn, 2007; Guo *et al.*, 2016). Researchers have also identified a plethora of barriers to responsible sourcing and sustainable development, including cultural challenges, costs, outsourcing, lack of frameworks, and specialist training requirements (Akintoye *et al.*, 2000; Glass *et al.*, 2012; Upstill-Goddard *et al.*, 2015; Ball *et al.*, 2022). One method of accepted certification for responsible sourcing is BES6001.

BES6001 is a standard framework managed by the Building Research Establishment (BRE). Currently, on version 3.1 revised in 2014, the accreditation is measured through a points-based system for materials and organisations. The standard is demonstrated through three categories, with a focus on

organisational policy and systems, supply chain management, and requirements connected to sustainable development (BRE, 2011). Figure 1 outlines the categories and their sub-categories with mandatory categories outlined in red. Materials are assessed through policy (3.2.1), compliance (3.2.2), quality (3.2.3,) and management processes (3.2.4). This ensures traceability of products back to the raw material are environmentally, ethically, and safely manufactured (3.3.1-3.3.3). The final category relates to sustainable development in its entirety, aligning with the UN Sustainable Development Goals (2015) (SDG). These categories consider resource and energy use relating to emissions, waste management, water use, transport, communities, and ethics (3.4.1-3.4.11). Organisations measure their certification through levels (“Pass”, “Good”, “Very Good” and, “Excellent”) by accessing points beyond the compulsory categories. The achievement of BES6001 allows organisations to publicise a standard certified third party with transparency, whilst gaining access to other frameworks (such as LEED, and BREEAM, amongst others). BES6001 also stimulates sustainable supply chain management (Hughes, 2019).

Glass (2012) identified that whilst the BRE provides an in-depth, prescriptive assessment of an organisation and material, there appears to be a systematic imbalance throughout supply chains. Specifically, larger organisations that can exhibit economies of scale tend to achieve higher scores than small and medium-sized enterprises (SMEs) with lower spending power (Ball *et al.*, 2021). The revision of the standard (to version 4) aims to address any disparities in the application. However, a restructuring of management systems and alteration of compulsory categories may place more pressure on organisations to reinvent policy and increase expenditure to comply with and maintain their current level of certification. The aim of this study, therefore, is to explore the ‘lived experiences’ of the current version (3.1) of BES6001 to yield the opinion of experts within the AEC sector who are directly involved in the management of their organisations’ BES6001 certification.

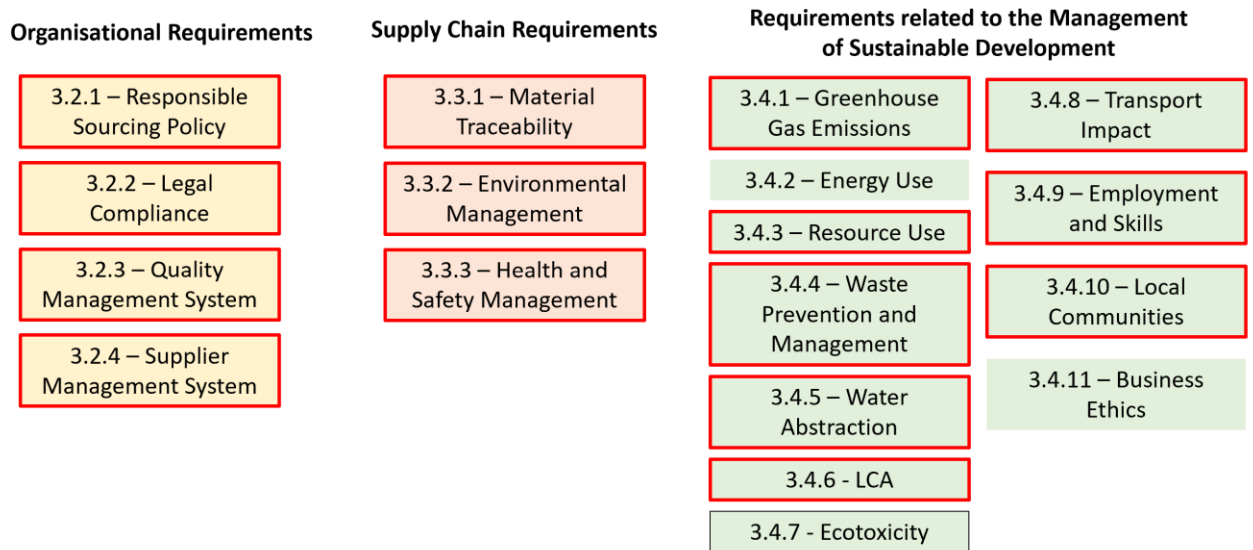


Figure 1: The BES6001 framework (Adapted from BRE Global, 2016).

### 3. RESEARCH DESIGN AND METHODOLOGY

This study utilised a phenomenological methodology: the rationale behind the implementation of this design can be attributed to the desire of the authors to explore the perceptions of benefits and barriers of BES6001 certification and its application process. A phenomenological research design provides an opportunity to employ a method of questioning that facilitates the observation of issues that are of importance to the interviewee using a descriptive, structural, and imaginative variation to explore individual experience (Chell, 2004). Phenomenology is commonly described as the study of perceptions and understanding of phenomena, and of the meaning this has, based on subjective experience. It should be noted that this method is encompassed, thus constant throughout the study rather than at the point of data analysis only. However, in undertaking phenomenological reduction, the means of thematizing conscious experience of phenomena requires the researcher to abstain from the use of personal knowledge, theory, or beliefs to ensure they remain a perpetual beginner and yield valid findings (Bevan, 2014). The use of semi-structured interviews was therefore deployed as a suitable data collection technique. This method establishes a reliable data set, whilst providing the

interviewer with the flexibility to explore the views of interviewees about their values and experience (Bernard and Ryan, 1998).

The choice of questions was derived from a review of existing literature and previous research relating to the organisational achievement of BES6001 (Ball *et al.*, 2021). The interviews were designed to elicit personal experience of experts who directly manage and promote their organisations' BES6001 accreditation. Interviews were split into three sections (questions can be found in Table 1): i) participant demographics and pre-qualification, ii) gaining a BES6001 accreditation, iii) managing a BES6001 accreditation, and iv) improving the BES6001 rating. All questions asked during the interview process were based upon their experience of the BES6001 application process and their perceptions of the benefits and barriers of certification. All sessions were conducted remotely, for an average of 45 minutes. Sessions were recorded with the interviewee's permission and transcribed, verbatim. Thematic analysis was then applied to identify common insights (Neubauer *et al.* 2019). The findings of this will be explored and discussed in the following section.

Table 1: A list of the questions posed to the BES6001 interviewees.

#	Interview Questions
1	Does your organisation hold any BES6001 accreditations?
2	What is your role within the organisation?
3	How many years of experience do you have in the AEC sector and also sustainability?
4	What is your highest academic qualification?
5	Are you a member of any professional body and, if so, which one(s)?
6	Can you kindly describe the approach your organisation takes towards sustainability, please?
8	Can you kindly explain why your organisation sought to gain responsible sourcing certification, please?
9	Can you kindly describe how your organisation approached the BES6001 accreditation process, please?
10	Can you kindly tell me about your experience of gaining BES6001, please?
11	Can you kindly tell me about your experience throughout the application process for BES6001, please?
12	Can you kindly tell me about your experience of managing BES6001, please?



### 3.1 Sample Size, Selection, and Recruitment

There are 196 registered organisations holding BES6001 certifications worldwide for one or more of their construction products with 124(65%) of these organisations being UK-based. Therefore, probability sampling approaches (random or systematic, etc.) were not deployed as they would not elicit the success of the objectives within this research study. Thus, instead, purposive sampling (non-probability) was used to ensure the participant inclusion criteria (specifically, working for an organisation within the AEC sector, which holds a BES6001 accreditation). Selected persons from within this target group were contacted by email and invited to take part in an interview (those with appropriate job roles and contact details – circa 50 in total were invited twice in 3 months). Participants were then offered a choice of face-to-face or online interviews.

### 3.2 Data Collection and Analysis

All interviews were recorded through Microsoft Teams with automatic transcription, which was then reviewed by the researchers to ensure accuracy. In order to preserve the anonymity of participants, pseudonyms were used within the text. As with other phenomenological studies, no computer analysis was conducted on the datasets. Transcripts were instead analysed by a stepwise process by the lead researcher (Table 2). This process involves repeated reading and thematic analysis to elicit meaning and an accurate personal description of the phenomenon under review (Osborn and Smith, 1998). The small sample size allows this micro-level approach, which has been adopted by previous phenomenological studies (Capodanno *et al.*, 2020).

To follow the phenomenological principles of epoche (bracketing), the researchers attempted to set aside any preconceptions or expectations on the subject area (Husserl, 1913). Bracketing, in this case, the use of square brackets [\*] within the discussion section, separates the researchers' interpretation

of the interviewees' demeanour from the actual responses given (Weatherford and Maitra, 2019). The interpretations reported within the next section are a result of the analysis. There are no obvious conflicts as none of the researchers have applied for or have ever managed BES6001 accreditation for any organisation. The authors also have no connections to the interviewees or their respective organisations.

Table 2: Description of the stepwise process used to analyse the participant interview narratives (based on Smith (1995), Osborn and Smith (1998)).

Step	Description
1	Interview transcripts were read ensuring a general sense was obtained of the whole nature of participant's narratives.
2	Returning to the beginning, the transcripts were re-read, and any emerging themes were identified and organised tentatively.
3	Focus was then on the themes themselves to group and define them in more detail and identify interrelationships.
4	Shared themes were then organised to formulate consistent and meaningful statements, soliciting the meaning and essence of the participants' experience grounded in their own words.
5	The statements and themes were then cross-checked with the original transcripts to validify occurrence.

Ethical approval was obtained before the interviews were conducted. This approval means all participants were informed via a participant cover letter that their consent and involvement was confidential and voluntary. Interviews were recorded and transcribed, and interviewees were given a two-week cooling-off period to withdraw their responses if required. This procedure is compliant with the requirements of the University of the West of England (UWE), Bristol, research ethics regulations.

#### 4. PRESENTATION AND DISCUSSION OF FINDINGS

This section reveals the themes and subthemes of the analyses and presents selective quotes to support the findings. The section is set-out as follows: i) participant demographics, ii) organisational approaches to sustainability iii) motivations for gaining and managing BES6001, and iii) challenges

surrounding the management of a BES6001 accreditation. To protect the confidentiality of participants, no personal or company-specific information is used in any of the descriptions or quotes within this section.

#### **4.1 Participant Demographics and Backgrounds**

Six participants (two engineering and four construction organisations) responded to the invitation to be interviewed about their organisation's BES6001 accreditation experiences and all opted to be interviewed online. The sample size is aligned with that expected of phenomenological studies (n=6-8 participants (Gauntlett *et al.*, 2017)). It also mirrors previous studies participant totals including Symeonides and Childs (2015), Serjeant *et al.* (2021), and Fong *et al.* (2021) who used six, seven, and eight participants, respectively.

All participants worked for AEC companies operating within the UK and who operate a current certification for the BES6001 standard. Further, all participants had been within the AEC sector for a minimum period of 5 years. Most (83%) have over 20 years of experience in construction and many of those had a minimum of 10 years in sustainability and environment-based roles. Participants stated they had Bachelor's degrees, with 33% of them holding Master's degrees. All participants held a current professional membership (including IEMA (66%) and the CIOB (16%)).

#### **4.2 Organisational Approach to sustainability**

All participants in this study noted a transformation in their organisational approach over recent years had been required to create sustainable processes. This is highlighted by the statement: *"We've just had a complete change and I suppose an uplifting of our approach to sustainability with the appointment of a new director and the development of a full sustainability team – so, that's happened over the last nine months [said with visible excitement]"*. This means that whilst organisations have previously had a clear strategy for sustainability, changing demand for compliance has initiated a more

rapid overhaul. This assertion has been highlighted by previous studies (Zhou and Lowe, 2003; Hahn, 2012). It has also been argued that governmental policy-making incentivises investment in sustainability (Trautrimis *et al.*, 2021). Targets within the decade have become more specific and measurable than ever before, with the SDGs providing clear quantitative goals, which have filtered into national policy, including the Construction Playbook (2020) and updates to Building Regulations (2022), which will see all new buildings achieve zero carbon emissions by 2050 (Russell *et al.*, 2018; Silva and Figueiredo, 2020; Gov UK, 2023). Opoku *et al.* (2022) have recently echoed this view and established that sustainable procurement can contribute to 9 of the 12 targets within SDG-12 (sustainable consumption).

All participants also asserted that sustainability has been a journey from original environmental goals towards a more wholly sustainable approach considering aspects including social value. This is demonstrated by the participant who [pondering, assured] said: *“I’ll describe it as it is now, which is possibly not the same as it was sort of the 10-12 years ago when we were first certified...it’s not just environmental things, we have a mixture now”*. This has been noted by other studies, in that environmental sustainability – whilst fundamental – is not the only aspect the AEC sector needs to address. Ethical and social issues have also been a key aspect of sustainability literature, with serious concerns surrounding labour forces and conditions, most notably modern slavery and bribery within supply chains (Carter and Jennings, 2004; Adnan *et al.*, 2012; Finster and Hernke, 2014).

All the participants claimed sustainability was fundamental to the function and success of their organisations. This is most evident by the statement *“Clearly, sustainability is a key value driver for our business [beaming with pride]...you know, we have a “voice to the customer session”, which our marketing people conduct...I’ll find out what different parts of our supply chain are looking for...then trying to get the best combination and trying to keep everyone happy”*. This consultation is necessary to create valuable change and is a theme that accords with other studies. Demands for pro-

environmental behaviours have been an increasing topic on the global stage for the last two decades. The creation of policy is aligned with an acknowledgment across sectors that current demands are not achievable with traditional processes. Therefore, supply chains must react to produce robust client relationships (Gluch *et al.*, 2009; Lee and Kim, 2009; Becerik-Gerber and Rice, 2010).

All of the participants in the study noted the value of a third-party assessment. There was an acknowledgment that this provides a robust approach to demonstrating sustainability. This is most proved in the statement *“You can see we take it seriously and...find the third party who is best in class to work with, and then crack on and [pausing to think] get that external validation, verification...”*. Previously, a lack of structured frameworks has been confirmed by other researchers, with BES6001 being promoted as a solution to this (e.g., Häkkinen and Belloni, 2011). The integration of measured responsible sourcing has also been suggested as a tool towards sustainable construction (Nasi *et al.*, 2017).

#### **4.3 Motivations for gaining and managing BES6001 accreditation**

Participants wholly referred to their respective senior management teams and a motivation for gaining and maintaining their BES6001 certification. This is shown by the statement *“We’re very on the ball with our approach, and that’s simply comes from the Managing Director who’s very, very focussed on environmental and sustainability [visibly excited]”*. This has been reported by other researchers, with Walker and Brammer (2009) and Upstill-Goddard *et al.* (2016) both noting senior management support as a vital facilitator to sustainable procurement. Carter and Jennings (2004) endorse this view, noting that management should exhibit authentic credibility to enhance an organisation’s values. However, Brinkhurst *et al.* (2011) surmise that top-down, and bottom-up approaches are both effective for the uptake of sustainability, but the motivation of the “middle” cannot be ignored.

Participants all noted the logical approach that a certification such as BES6001 brings to their organisation, in its capacity to integrate and include multiple dimensions of sustainability. This is most evident in the statement *“We built the requirements of 6001, into our integrated management system. So, it’s within one of our environmental standards. Umm, although it picks up other things, not just environment, that was obviously the decision made at the time [gesticulating] that’s the way it fits best. So, we have a standard where the specific requirements of 6001 are covered and then more general requirements are also within there”*. Whilst it has been previously noted that sustainability reporting at times, promotes compartmentalisation, the use of holistic approaches to responsible sourcing has the potential to create alignments throughout supply chain processes (Lozano and Huisinigh, 2011; Upstill-Goddard *et al.*, 2019;). The SDGs, in particular, define interlinkages to provide an integrated approach to sustainable thinking (Elder *et al.*, 2016). The use, therefore, of tools (such as BES6001) by the AEC sector is evidence of the shift towards integrated sustainable practices for supply chains (Seuring and Muller, 2008).

Participants in this study also believed that having accreditation(s) was a positive banner for showcasing their organisational transparency. The following statements evidence this *“I mean it’s like a code of business conduct. It’s dead easy, and when we do that, part of the audit comes from our specialists [jovially said]”* and *“Yeah, I actually say to people this is our Cinderella standard. If we can’t get this, we haven’t got a hope...”*. Accreditations such as BES6001 provide an analytical approach to the procurement of construction materials – as stakeholders continue to demand pro-environmental behaviours, providing certified materials enables organisations to operate transparently and responsibly. This has been linked to particular improvements such as competitive advantage and customer loyalty (Falck and Hebllich, 2007; Glass, 2013).

All of the participants considered themselves early adopters and noted that BES6001 provides assurance to their client base that the organisation has a clear, evidenced, and measured approach to

sustainability. One participant, explaining their journey noted *“It’s a long time ago now, and I’m having to cast my mind back...[pausing] there were two real drivers. I think the first was it was clearly going to link to credits on BREEAM. Uh...so we could see the value in having that certification and providing that assurance to our clients...and secondly, we could see that by gaining certification, it would improve our business in a number of areas”*. These motivations have been highlighted in previous studies, with benefits including access to credits on sustainability assessment schemes (BREEAM (BRE, 2023), LEED (USGBC, 2023)), stakeholder value, environmental performance, and competitive advantage (Zackrisson *et al.*, 2008).

At frequent points in the interviews, client demand was noted by all participants. This is most apparent from the statement *“We are basically at the point now where [the client] they’re really, really demanding that we have them [BES6001 Certificates] – luckily we do [laughs]”*. Due to environmental awareness increasing over the last two decades, traditional practice has been noted as unsuited to modern demands. Chen *et al.* (2019) noted stakeholder demand as a motive for change among supply chains, and there has been acknowledgment within the sector that principles are shifting from ‘just in time’ towards ‘responsible practice’ (Khoo *et al.*, 2001; Becerik-Gerber and Rice, 2010). As policy-making has also moved towards sustainable construction, the sector has also responded to meet the demand (Paramanathan *et al.*, 2004).

#### **4.4 Challenges surrounding the management of BES6001 accreditation**

All participants identified resources and costs as the main challenges to BES6001. This is most evident in the statement: [resigned] *“I can see the value because you might not wanna go down the certification route ... because of the cost”*. Agrawal and Lee (2016) mirror this assertion, that the cost of sustainable practice is a barrier to use. The capital cost of BES6001 either has to be absorbed by the organisation, or be passed onto clients (if an organisation chooses to increase their product cost as a result of certification), and, therefore, the value may be placed elsewhere (Becerik-Gerber and Rice,

2010). Subsequently, the recognition of the value of standards that apply to more than one product was raised. As opposed to BES6001, which applies to a singular product, ISO standards apply to an entire organisation. This was demonstrated through the statement *“Because the systems don’t talk to each other, it perpetuates the impression that it’s just a badge on the wall, and where you’re trying to manage perceptions – like in my role, you need to prove they’re effective [clearly unsatisfied]”*. This has been previously noted in studies with responsible practices, where there is an emphasis on financially oriented issues within public sector spending (Walker and Brammer, 2007; Zackrisson *et al.*, 2008). Budgets often restrict the options available for projects, and the value of responsible sourcing can become difficult to justify with cost and economic uncertainty taking precedence (Guinipero *et al.*, 2012).

Further to this, high levels of administration for BES6001 certification and a consequent lack of achievement were also emphasised by all participants. This is highlighted through the statement; *“We have achieved Excellent in the past...but we were only certified as Good last time around because we declined to publish any data [becoming animated] but if we hadn’t included all sections of the business on the certificate, we would have been Excellent”*. Whilst certification has been linked to a suite of benefits including cost savings (Christopher and Peck, 2004). It is argued that the expense and demands required to achieve certification may mean it is unreachable (Upstill-Goddard *et al.*, 2015). Stakeholders have also exhibited confusion in the past over the costs of responsible sourcing, with the capital costs of responsibly sourced products seeming higher than those manufactured using traditional practices (Zarei *et al.*, 2020).

All participants acknowledged that SME access to schemes such as BES6001 can be challenging. This is shown in the statement *“Unfortunately we can’t run these different management systems unless we significantly increase our overheads. So, in, in, in [repetitive, pausing, pensive] terms of sustainability, I think we tick all the boxes, the problem is for us [sighs] we can’t actually prove it [clearly*



disappointed]”. SMEs are often unable to provide the necessary resources to manage internal reporting systems. The capital costs of an overhaul were noted by the participant’s statement *“Small businesses don’t have the financial resources...our MD wants to put financial resources into sustainability, but for small businesses it’s extremely challenging [dejectedly]”*. Previously, research has concluded that BES6001 exhibits a systematic imbalance, with larger organisations achieving higher certification than SMEs who have limited capital spending power (Glass, 2012). Updates to the standard have altered the structure, and integrated management systems remain compulsory to achieve accreditation – therefore SME’s must overhaul entire reporting processes to access certification (Ball *et al.*, 2022). Consequently, SMEs cannot meet these demands due to resource constraints (Cassells and Lewis, 2011).

All participants acknowledged that client demand was a motivation for BES6001 certification, but the motivation for this was, at times, somewhat unclear. This is demonstrated by the statement *“I’d argue there’s no benefits. But the benefit we get is only from the client...I feel that it could be achieved in a better way and communicated better so that you know [animated and firm]...there was a better understanding with the customers and the clients about what they’re asking for”*. Confusion over frameworks and the value of certification for responsible sourcing has also been noted by previous studies. Glass *et al.* (2012) highlighted confusion over the definition of responsible sourcing, and this is linked to the broad scope that can be applied to the term. Dunant *et al.* (2017) identified through their research that barriers to responsible sourcing across the UK supply chain may only be perceived, rather than tangible.

There was also a plethora of challenges raised by the participants – firstly the achievement of BES6001 is also dependent on both upstream and downstream aspects of the supply chain, which generates the requirement for complex supply chain management systems (Meckenstock *et al.*, 2015). This is most evident in the following statement – *“I feel that it needs to be less of one person coming together*

*and saying – how do we do this? Then sending 25 emails – I need this and this...[stoic, pausing]*". BES6001 can be viewed as an isolated assessment because it is for one product rather than an organisation as a whole, rather than the holistic approach to a supply chain. This challenge also leads to the question of value – when an approach is isolated for a product and not the view of the organisation as a whole. This is particularly relevant when explaining the value of BES6001 certification to stakeholders. It was also recognised that a numeric assessment procedure, like BES6001, can create a pass/fail mentality. This is highlighted through the statement: *"It makes it more like the exam that you have to pass, rather than you meet the requirements [clearly frustrated]...in other standards, we don't have a numeric score"*. This assertion could also be linked to a lack of awareness and/or a lack of established platforms and collaboration, which have been previously noted as barriers to responsible sourcing (Rohracher, 2001; Glass *et al.*, 2012).

All participants also raised concerns over the perception of value. This is reinforced by the statement *"So the, the client demands it, but I don't think the client understands. I don't know when you send these packs of information into the client, it's part of a tender process...but the client only sees the title...and they say they want 6001"*. It has been noted that management and stakeholder opinions provide strong motivations for engagement with sustainable behaviours (Ageron, 2012; Herremans *et al.*, 2016; Li *et al.*, 2023). However, misconceptions of value have impacted client engagement in the past (Dodds *et al.*, 2017). Whilst BES6001 provides a third-party accreditation for responsible procurement, the perceptions of value by the wider sector remain problematic (Harwood *et al.*, 2011; Zarei *et al.*, 2020).

Finally, it is also worth noting that during the course of the interviews, the overarching impression was the empathy, belief, and passion of the AEC experts in their approach to sustainability. The interviewees were measured and thoughtful in their responses, and whilst the challenges of BES6001 accreditation were raised and explored, the drive for change across the sector and the awareness and

underpinning concern for the environment were evident across all the themes presented. The participants exhibited a genuine approach to achieving wholly sustainable behaviours – most notably by the participant who [animated and resolute] said: *“Because actually the more I’ve done, the more we’ll start to find is that all roads lead to the same place”*.

## **5. CONCLUSIONS AND RECOMMENDATIONS**

This study aimed to employ a phenomenological methodology to reveal insights into the ‘lived experiences’ of AEC experts involved in the attainment and management of BES6001 certificates. This study has identified that senior management drives an organisational approach to sustainability. The main benefits for implementing BES6001 are:

- BES6001 provides a structured approach to responsible sourcing.
- BES6001 is used as a mechanism to showcase organisational transparency and ethical sourcing.
- Responsible sourcing is frequently requested and expected by stakeholders, and BES6001 is a key tool for delivering this.

The main barriers to implementing BES6001 are:

- BES6001 requires dedicated resources and administration to maintain accreditation
- BES6001 requires capital investment to achieve accreditation
- BES6001 can be limiting for SME organisations that cannot utilise resources or economies of scale

Based on the evidence collected the following recommendations are drawn:

- There should be consultation and assessment of planned future revisions of the BES6001 standard to address the complexities and costs of achieving BES6001, to enable entire supply chain achievement;

- Production of evidence to meet the requirements for BES6001 accreditation should be considered to provide in-depth support to organisations, whilst undertaking the accreditation for the production of a guidance manual or similar.

Sustainability is a widely acknowledged phenomenon and is an all-encompassing method for change – traditional siloed approaches are becoming obsolete, and this study mirrors the insights that collaborative and innovative solutions should be championed across sector boundaries – allowing for integrated assessment of products and supply chains. BES6001 has the potential to provide a mechanism for the organisation to demonstrate the product and organisational attributes. BES6001 also acts as a reliable, third-party assessment of product and organisational attributes. However, it should be noted that the results of this study are based upon organisations that are already operating to the BES6001 standard (with many also seeking additional third-party accreditations, such as ISO standards). The Green Book Register currently indicates 196 BES6001 certificates, which given the amount of construction activity across the UK alone, would class the experts in this study within a minority. The BES6001 standard is perceived by the respondents as being relatively straightforward and cost-effective, using integrated systems and regular reporting, but there is an acknowledgment that attainment is inconsistent, and for smaller organisations, it may remain out of reach.

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