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BSI roundtable report

# Quality management and BS 99001

Inspiring trust for a more resilient world.





“We’re currently experiencing the largest regulatory change in the Built Environment sector since the Second World War, and so there has been a growing sense that the industry needs to get its house in order.

BS 9901 has the potential to deliver significant benefits to organisations, ultimately giving a return on investment for an industry massively challenged by rising costs and safety defects. Building on ISO 9001, the standard enables users to demonstrate a commitment to providing a high level of quality assurance on projects, including through the supply chain, as well as in their own day to day operations. We therefore hope it will be a game changer for the industry.”

Ian Richardson, Sector Lead, Built environment, BSI

Quality management is more important than ever for the built environment industry. Several leading organizations in the sector shared their perspectives on this critical topic at a recent BSI event.

## Introduction

In this report, we summarize the findings from our informal discussion about quality management in the built environment industry. We focus specifically on BS 9901:2022, a new British Standard created to raise quality management in the sector.

Both BSI and the organizations represented are firmly committed to promoting quality management in the built environment and highlighting the benefits it can bring to themselves, to the clients and communities they serve, and to the UK economy as a whole. We hope that as well as sharing key insights, this initiative creates awareness of BS 9901 and encourages organizations throughout the sector to adopt it.



## The background – ISO 9001

The iconic quality management standard, ISO 9001 has long been the world's best-selling standard. It is a generic standard – hence its wide appeal – addressing how organizations of any size or type can successfully implement a quality management system (QMS).

**But ISO 9001 has never entirely fulfilled the specific needs of the built environment sector.**

Two reasons for this stand out. First, ISO 9001 is geared towards organizational quality systems. The built environment sector, however, is largely project-based – from conception and design to decommissioning or demolition of built assets – and projects themselves need an effective QMS to ensure sufficient quality assurance at all stages.

Second, the generic nature of ISO 9001 means that it does not deal in sufficient detail in the areas where the built environment most needs quality to be managed. For example, one common concern is the danger of quality being compromised to cut costs; another is that safety could be undermined by insufficient resource being allocated to ensure quality is checked effectively.

For these reasons, the industry recognized the need for a new sector-specific quality standard – and this has now arrived in the form of **BS 99001:2022**.





## A new British standard – BS 99001

BS 99001:2022 *Quality management systems – specific requirements for the built environment sector*, to give it its full title, was published in July 2022. The standard supplies additional sector-specific management system requirements that are intended to tackle areas of concern in a multi-organizational, project-based way of working. The intention is for it to be used alongside ISO 9001 to supplement that standard.

BS 99001 has effectively brought industry players together and consolidated their thinking and expertise to expand upon the requirements of ISO 9001. Over the years, many of them had developed their own schemes or documents, resulting in a fragmented picture, so the new standard facilitates much-needed cohesion in the sector.

The standard has been developed for the whole sector, including large and small businesses. It is written for designers, architects, construction organizations at all tier levels and contractors. It covers structural engineers, project managers, raw materials suppliers, surveyors and skilled tradespeople. It also takes in decommissioning and recycling experts and manufacturers who prefabricate for the industry.

“Quality of built assets is directly linked with sector-wide improvements in sustainability, safety and resilience of the assets. BS 99001 positions quality alongside these improvements and provides a framework to bring everyone together to improve quality of built assets, including supply chain and day-to-day operations.

This standard is written by and for the built environment sector using sector specific language and takes into account multi-stakeholder project-based nature of the sector.”

Rahul Shah,  
Built Environment Sector Director, BSI

# The event: **Key discussion points**

Rahul Shah, Sector Development Director, BSI, opened the discussion by briefly outlining BSI's commitment to bringing BS 99001 to fruition, and our wish to encourage further debate and collaboration on this important topic. He then asked the experts to address some key questions:

## What does quality mean to you and your business?

**Steffan Speer**, Technical Director, Morgan Sindall Construction – and a member of the drafting committee for BS 99001 – began by offering a definition of quality along the lines of the ISO definition: **'The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs'**.

**"So, that means quality is variable, in the sense that what it means to you and to me will be different. That brings challenges across the whole of our complex industry, with its many participants."**

Speer explained that his own company regarded quality as integral to its broader mission to create inspiring places for people to live, learn, work, play and care for. "It's not just about the construction of buildings today, but the impact of those buildings on the daily lives of their users long into the future," he said. He observed that it demands the creation of the right company culture to collaborate, meet multiple standards and regulations, and resolve conflicts, to get projects right for clients and, ultimately, users.

**"Quality should be invisible, in the sense that it underpins absolutely everything we do,"**

commented **Adrian Shah-Cundy**, Corporate Responsibility Director, VolkerWessels UK. "We also try to build it into our corporate culture and values, so it's present in our decisions, actions and behaviours, so we can achieve 'best in class', in delivery, in quality and in people."

He noted that quality is often about getting the relevant information to the right people at the right time, rather than saturating them with procedures, systems and data that are not helpful to them. In that vein, VolkerWessels UK is embracing BS 99001 to renew its focus on their quality management systems, for example, through new digital tools that provide clearer insight into non-conformances. Importantly, he said, the standard is championed at board level, ensuring it is given the attention it merits throughout the company.

## Key discussion points

**Rob Cairns**, Senior Innovation Manager, HS2, agreed that quality is equally fundamental to the success of his business and ranks as highly as cost and safety when it comes to constructing the UK's new high speed rail link.

**“Quality is built into our project delivery plan. It’s part of our contractual requirements, as set out by government, and it flows through our supply chain to ensure that all undertakings and assurances are fulfilled.”**



## How do you think BS 99001 can support your business and supply chain in improving quality even further?

**Shah-Cundy** spoke of the Building Safety Act combining with other regulations and standards, now including BS 99001, to create a ‘golden thread’ of building information throughout the lifecycle of buildings, particularly higher risk buildings.

“There’s an obligation upon us and on others across the industry to maintain vital safety information around the design, build and management of buildings, but there’s also an opportunity to go much further and tie in wider data, including the information management principles from BIM standards, for example.”

Shah-Cundy observed that BS 99001 frequently refers to ‘interested parties’, representing a significant increase in focus on information management, “taking us back to that golden thread”. He reiterated,

**“It’s all about all the right people getting the right information at the right time – or else risk a greater potential for errors.”**

The experts agreed that, however sophisticated systems, processes and standards become, “we must not lose sight of people” when it comes to implementing them and maximizing the quality, consistency and other benefits they can bring.



# Key discussion points

Developing this theme, Speer highlighted the fact that ISO 9001 and BS 99001 should be read together, and that the new standard is tailored specifically to the construction industry and its project-style working, particularly through joint ventures.

**“Part of the quality challenge is coping with the sheer volume of information and processes out there and making them ‘consumable’ – and BS 99001 achieves this,”**

he said. It does so by building on existing frameworks to create a single common methodology that built environment organizations can readily adopt and share. “It also makes users aware of the key roles played by other built environment industry standards, such as ISO 19650, encouraging them to get their whole management system structure right,” said Speer.

## How do you see innovation driving quality?

The experts listed several areas where innovation is driving quality in the built environment. Cairns, for example mentioned HS2’s use of modern methods of construction, such as concrete 3D printing, spray lining techniques and low carbon offsite prefabrication. All were particularly enthused by the industry’s accelerating adoption of digital technologies.

**“But with digital comes a plethora of data and information, which is only great if you know what to do with it,”**

warned Cairns. In relation to quality, he described HS2’s focus on choosing and using data effectively to measure, analyze, inform and improve the company’s own quality control processes, and those of its supply chain.



# Key discussion points

**“Without doubt, turning data into actionable insights is the biggest opportunity the industry has to deliver a step change.”**

Speer added that, while the construction industry has been ‘behind the curve’ in terms of digital transformation, “there’s now so much new technology and so many innovative software solutions out there that we have to be very careful what we go for, especially when it comes to ensuring the quality agenda is not overlooked.” Some solutions, he maintained, made the problem of data overload worse. Some could lead to organizational complacency, with managers assuming that a new software tool would automatically address complex challenges. And some would meet with resistance from users, “because some people, for whatever reason, don’t want to use them.”

That said, he remained resolutely positive:

**“When you get the technology and the culture right, it really does help with the flow of information and ultimately meeting the quality agenda. It’s helping us for sure.”**

## How can you take BS 99001 quality further into supply chain?

All the organizations wanted to lead their suppliers by example, rather than dictating to them. As Cairns observed: “Having a standard in place provides a shared framework and common language that flows from the client all the way down through to the lower tiers of the supply chain.”

He added, “We have a very large supply chain, so the standards we have in place ensure we maintain an integrated approach to delivery, which is so important for complex infrastructure programmes.”

There was also a shared acknowledgement of the importance of organizations having their own processes and standards in place before pressing suppliers to adopt them. Above all, there was a commitment to communicate and collaborate with suppliers – in short, to work together – to deliver consistently high quality.

The event participants agreed that BS 99001 is a tool that everyone can engage with to achieve sector-wide improvements in the fundamental suitability, safety and durability of built assets. The new standard will help individual companies enhance their project-based quality management through a shared framework and common language, demonstrating their commitment to quality assurance in their day-to-day operations. Last, but by no means least, it will contribute towards building trust and confidence in the industry as a whole.



# Key discussion points

Cairns highlighted the BSI Kitemark for Innovation Management, which is based on the ISO 56002 standard, as a key factor in supporting BS 99001 quality at HS2. Certification to this Kitemark validates that an organization has determined its vision, strategy, policy and objectives, and has established the support and processes needed to achieve the intended outcomes of its innovation programme.

**“We need to achieve consistency throughout our supply chain, so we engage a lot with the different tiers. We adopt a collaborative approach, that’s why we support the BSI Kitemark for Innovation. It allows us to create that common language that all our suppliers – from our Tier 1 contractors all the way down to innovative SMEs – can work to.”**

He added, “It gives us confidence that our processes are not just something written down on a tender document – our supply chain is living and breathing them to meet our expectations as a client.”

This report was based on a panel discussion from a BSI webinar ‘Global Built Environment Summit - Quality and Value’, hosted in December 2022. Watch the full webinar replay [here](#).



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(Panel moderator)



**Steffan Speer**  
Technical Director,  
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**Adrian Shah-Cundy**  
Corporate Responsibility  
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**Rob Cairns**  
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# About BSI



The world's first standards organization, BSI remains a leading global standards business and is responsible for creating many of the world's most commonly used management systems standards. It was BSI that produced BS 5750, the precursor to ISO 9001; and the first environmental management standard (now ISO 14001) back in 1992. The portfolio of 35,000 current standards includes major new standards that address key issues facing today's global society and economy.

At BSI, we are committed to sustainable development and to advancing the UNSDGs, both through our own actions and by helping our clients make sustainable choices. Through the reach of our standards, stakeholders and clients, our greatest contribution to sustainability is through the work we do with others. Recognizing that all the UNSDGs are interconnected, and that our Royal Charter requires us to co-ordinate efforts for the benefit of society, we make our most significant contribution through SDG 17 Partnerships for the goals, and have identified an additional six goals that we believe we can advance:

- **Goal 3:** Good health and wellbeing
- **Goal 7:** Affordable and clean energy
- **Goal 8:** Decent work and economic growth
- **Goal 9:** Industry innovation and infrastructure
- **Goal 11:** Sustainable cities and communities
- **Goal 12:** Responsible consumption and production

## Next steps: How BSI can help

**BSI is committed to supporting the built environment industry in meeting its challenges, from prioritizing people and adopting sustainable practices to innovation and digital transformation. The introduction of BS 99001 will underpin all of these strategic objectives.**

**To provide confidence and trust in the implementation process for BS 99001, BSI has developed a training programme and a new management system certification scheme against the requirements of the new standard.**

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**Note:** As an accredited certification body, BSI Assurance cannot offer certification to clients where they have also received consultancy from another part of BSI Group for the same management system. Likewise, we do not offer consultancy to clients when they seek certification to the same management system.

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