



Maintaining quality and reliability in the aerospace sector



Global growth in the aerospace industry

The aerospace industry continues to expand with record-breaking production levels and growth recorded year after year. This growth is supported by increasing travel demands from businesses in emerging markets, freight transportation and global passenger travel.

According to a recent survey from Deloitte, the aerospace and defence industry's revenue grew to a staggering US\$706 billion in 2013¹. The demand for international travel increased by 5.7% compared to 2012², with a total of 36,770 new airplanes expected to be manufactured in the next 19 years³.

The increasing demand has meant that there's a strong focus on environmental impact and social responsibility. Manufacturers are looking for new ways of creating more fuel efficient 'next generation' aircraft that promise to offer 15% better fuel burn.

Aerospace, Security and Defence (ASD) supply chain is becoming increasingly strained, with more Original Equipment Manufacturers (OEM) customers than ever. Components, systems and services are in constant demand from suppliers.

Quality is also becoming a main focus as manufacturers have started 'consolidating', so they can offer their customers more services to help tighten supply chain streams to improve performance.

While the commercial aerospace sector is growing, the defence sector is seeing a decrease in market activity. Worldwide the defence industry will be challenged with creating new and more efficient ways of working to increase productivity and reduce inefficiencies.

Organizations must ensure that quality management is top of mind as global demand increases and that they operate sustainably in a way that secures their place in declining markets.

The BSI services outlined in this brochure address the key challenges.

Civil Aeronautics:

the production and operation of commercial aeroplanes



Defence

the production, sale and operation of naval and ground defence transport



Space

the production, research, testing and sale of spacecraft components.





By Royal Charter

BSI – an industry thought leader

BSI is the world's first National Standards body with over 100 years' experience

BSI has pioneered the development of many of the world's leading standards and we have extensive experience shaping global standards to facilitate trade and improve business.

The majority of the most widely used and implemented international standards were originally shaped by BSI, including ISO 9001 for Quality Management, ISO 14001 for Environmental Management and AS9100 for Aerospace Quality Management.

The aerospace standards are a series based on ISO 9001 and developed by the International Aerospace Quality Group (IAQG). Most major aerospace manufacturers and suppliers worldwide require compliance and/or certification to one of the relevant standards in the AS9100 series as a condition of doing business.

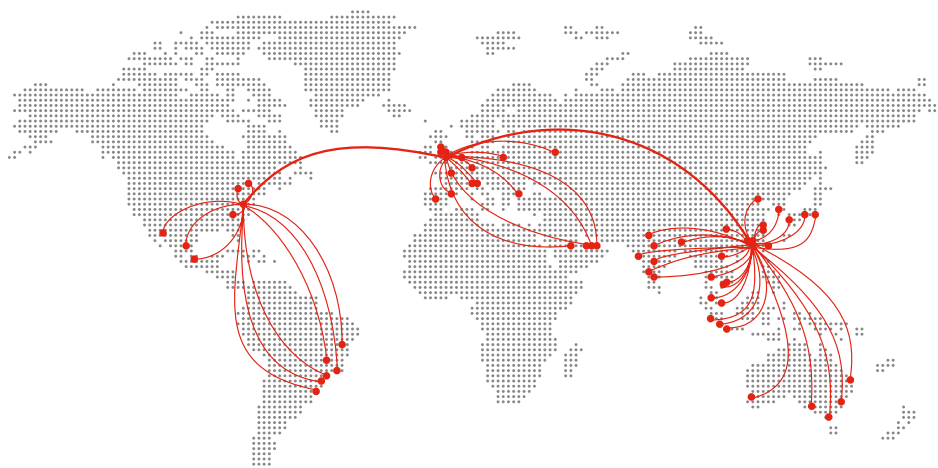
We bring together experts and innovators to tackle the ever-changing issues facing the whole supply chain, from manufacturers through to software and cloud services providers, and have led all these initiatives.

- **Aerospace Quality Management series AS9100** – This series is used by aerospace companies of all types and sizes, including manufacturing, maintenance and distribution.

The standards provide international consistency and address specific regulatory, safety and reliability requirements.

- **Environmental Management** – ISO 14001 helps businesses manage their performance to better control environmental impacts, reduce the risk of potentially costly incidents and fines, and ensure compliance with environmental legislation.
- **Supply Chain Management** – BSI has a range of specialist tools and services to ensure your supply chain is secure, resilient and well managed.
- **Occupational Health and Safety** – BS OHSAS 18001 helps organizations minimise their occupational risks, deliver optimum working conditions and meet legal, industry and customer requirements.

As a royal charter company, with 70 offices worldwide, we have the global reach to help any organization, large or small, make a difference to their business and manage their risks now and into the future.



...With 70 offices worldwide, we have the global reach to help any organization, large or small make a difference...

BSI Solutions



Our range of integrated services can be structured to your specific needs and help address your challenges and objectives within quality management and general business management concerns:

- Standards and subscription services provide access to an enviable source of knowledge through standards and publications
- Training introduces you to standards and explains how to implement and audit against them
- Independent certification and verification proves you're compliant to your stakeholders

- 2nd party verification audits, including the supply chain tool BSI VerifEye, helps protect and improve your suppliers' performance
- Business Improvement Software powered by Entropy™ helps you effectively manage your systems and processes to drive performance

Using our decades of experience and innovative development in this field, our expert teams can work with you to identify and share the key standards which address your concerns. Best practice is underpinned by embedding the right disciplines within your organization, which can be achieved through management systems training, certification and verification.

Business Management



Embedding good business practices can be the backbone to creating a more successful business

From entrepreneurs to established companies, achieving true success is all about how you perform day in, day out and how you manage your risks. Your organization's competitiveness and ability to survive is determined by how well it operates.

Key Facts

- 93% of large organizations and 76% of small businesses had a security breach in 2011¹
- 79% think an organization has an ethical duty to fight corruption²
- 86% believe business continuity planning improves business resilience³
- Effective partnering can reduce overall costs by 20-30%⁴

Embedding standards and best practice into your organization can provide the answer helping to reduce risk, build stakeholder confidence and perform at its best.

BSI Services

Quality Management – ISO 9001

The world's most widely recognized quality management standard outlines ways to achieve consistent performance and service.

Asset Management – ISO 55001

A new international standard which focuses on the effective and efficient management of your assets. Including usage and return from your asset, while potentially lowering the overall cost of ownership or management.

Business Continuity – ISO 22301

This international standard allows you to identify potential threats to your business and increases your capacity to deal with unexpected disruptions.

Anti-bribery – BS 10500

A best-practice framework to manage bribery risk and develop adequate procedures BS 10500 can help to protect your organization and fulfil your regulatory requirements.

Collaborative Relationships – BS 11000

This framework for collaborative business relationships can help you develop and manage your interactions with other organizations for maximum benefit to all.

British Standards Online - BSOL

BSOL provides instant access to over 55,000 British, European and international standards, 24/7.

These services can help organizations to:

- Identify and manage current and future risk throughout your business and supply chain
- Demonstrate compliance and gain status as a preferred supplier
- Increase stakeholder and customer trust that your organization is managed effectively.

Aerospace sector



The aerospace sector today is growing at an unprecedented rate. As demand continues to increase, it is important that organizations can respond with more innovative and efficient ways of working that are cost effective. Certification to globally recognized standards increases the credibility of an organization.

Key Facts

- The speed of technology innovation and replacement cycles means that operators can expect new pricing expectations.
- Up to 36,770 new airplanes are expected to be manufactured in the next 19 years¹.
- 84% of Aerospace and Defence executives say that having well-defined and accepted processes for innovation in place is extremely important¹.
- OEMs are extending their footprint in emerging Asian markets.
- 86% of Aerospace and Defence executives say their company will collaborate with strategic partners over the next 3 years¹.

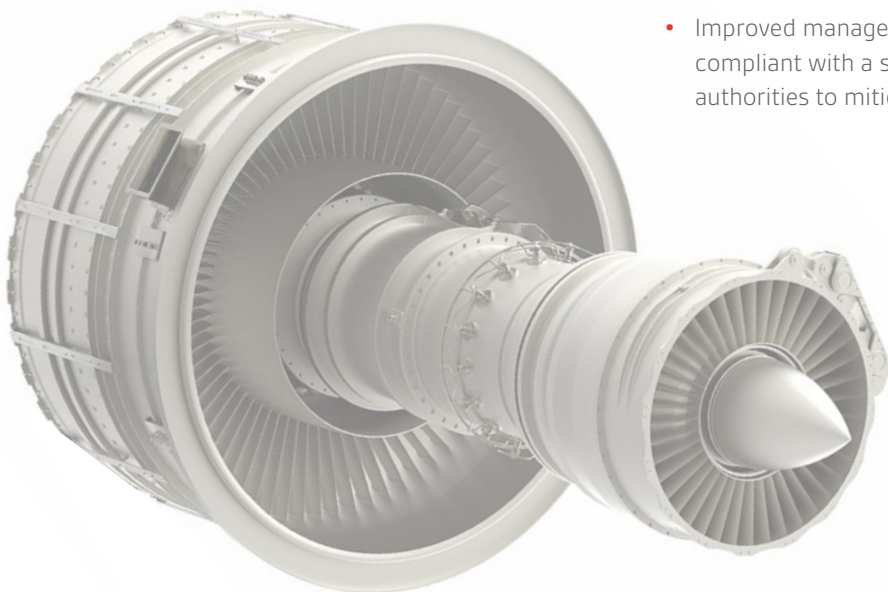
BSI Services

AS9100

Your company will need certification to AS9100 if you want to grow your business and address specific regulatory, safety and reliability requirements. The aerospace standards are a series based on ISO 9001 and developed by the International Aerospace Quality Group (IAQG).

Why implement AS9100?

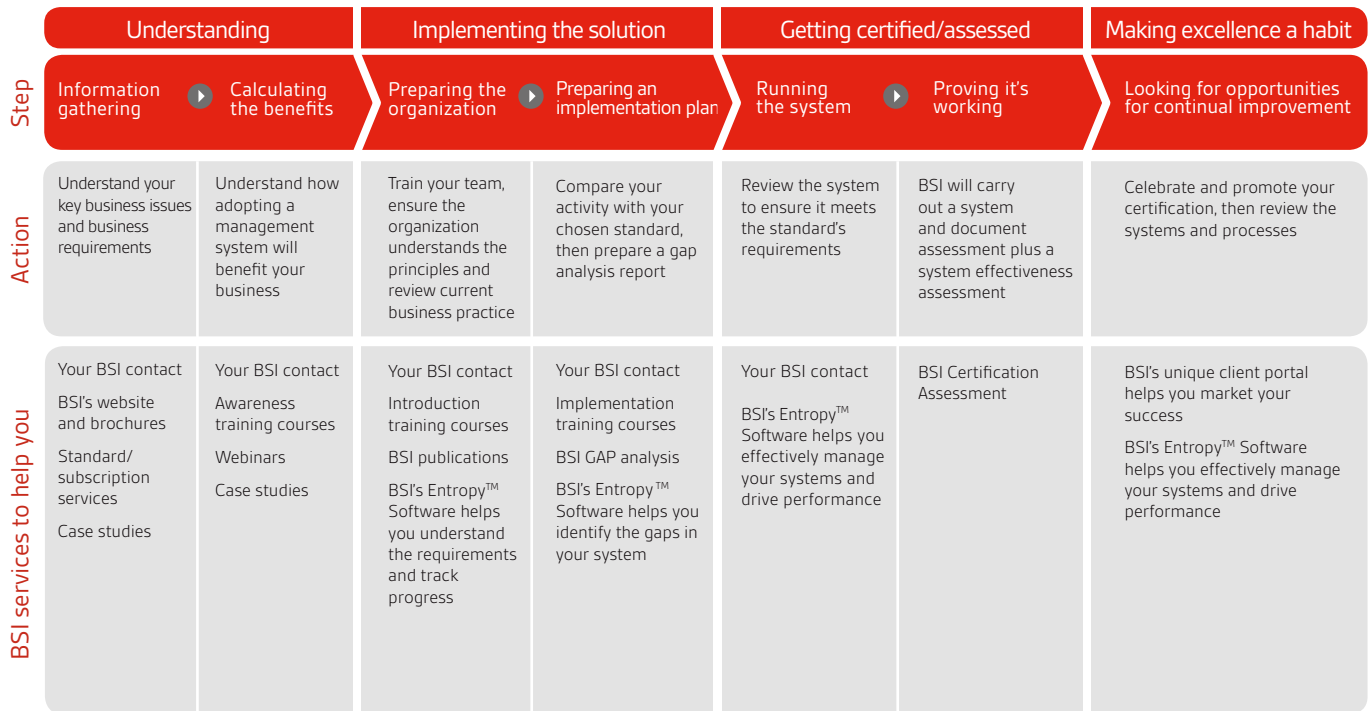
- Inclusion. Become part of the Online Aerospace Supplier System (OASIS) database.
- Assured license to trade. Enhances your ability to meet the requirements of the aerospace industry.
- Greater international growth and sales. Provides commonality throughout the industry, identifying opportunities for increased trade and co-operation.
- Improved management of risks. Ensures you are compliant with a system supported by regulatory authorities to mitigate your risks.



Client Journey



A guide to your journey with BSI



Aerospace

"We have seen a number of tangible commercial benefits since implementing AS9100. We have made cost savings through improved efficiency and productivity; deficiencies are highlighted meaning that we can continually improve; in turn that means reduced waste, less inappropriate or rejected work and fewer complaints."

Adrian Gauden, Quality Manager, Field International.

"Since achieving certification we have seen a reduction in customer audits as confidence in our ability to manage quality has improved.

Jonathan Sleight, Quality Engineer, MM Microwave Limited

Aerospace Quality Management series AS9001

Aerospace companies of all types and sizes, including manufacturing, maintenance and distribution, use one or more standard in the AS9100 series. The standards provide international consistency and address specific regulatory, safety and reliability requirements.

Environmental Management

ISO 14001 helps businesses manage their environmental performance to better control environmental impacts, reduce the risk of potentially costly incidents and fines, and ensure compliance with environmental legislation.

Supply Chain Management

BSI has a range of specialist tools and services to ensure your supply chain is secure, resilient and well managed.

Supply Chain



Successfully manage your supply chain risks by knowing your real suppliers – real people, real production lines and real facilities

Today we move from domestic to regional and then global supply chains which are both more complex and spread over wide distances. As a result the definition of quality has moved to include environmental, social, ethical and security issues. Reputational risk is becoming increasingly important as transparency and globalization accelerates.

Key Facts

- 93% of executives believe that addressing supply chain risks is a growing priority¹
- 75% of organizations recorded at least one supply chain disruption in 2013²
- 55% of organizations experienced productivity loss as a result of a supply chain incident²
- 45% of executives lack confidence in their supply chain risk management programmes³

Managing the supply chain is essential to protecting an organization's brand and corporate reputation.

BSI Services

Supply Chain Solutions – Suppliers Verification and Risk Assessment

An intelligence based approach from BSI can help an organization manage its supply chain risk and protect its brand reputation. It leverages standards, risk evaluation tools, verification and supply chain tools to help clients identify and manage their supply chain and thus mitigate risks.

BSI Supplier Verification Audits

On site profile validation and verification audits based on BSI or client requirements.

Supply Chain Risk Exposure Evaluation Network (SCREEN)

A comprehensive supply chain intelligence tool including country heat maps covering security, environmental and CSR. SCREEN helps organizations identify and understand their supply chain threats.

Supplier Compliance Manager (SCM)

A web-based tool designed to facilitate and automate mandatory supplier risk assessments. Manage supplier self-assessment and on-site supplier qualification and verification programmes including on-boarding, scheduling, reporting, corrective and preventive action management and benchmarking.

Supplier Advisory Services

Offering technical advice and information on supply chain risk, programme set-up and design.

These services can help organizations to:

- Mitigate supply chain risks
- Protect brand and corporate reputation
- Provide assurance to key stakeholders that suppliers are being managed effectively
- Comply with government security programs

Find out more at www.bsi-supplychainsolutions.com

Supply Chain Stress Test



How would your organization and supply chain stand up to a public opinion stress test?

Customers, journalists, directors, NGOs, shareholders and investors are increasingly interested in your supply chain and how you manage your quality, safety, environmental and social issues:

How many suppliers do you have?

How many are direct versus indirect?

Do you actively verify your suppliers?

Have you conducted risk assessments on all your suppliers?

How many have you physically visited?

What are the issues and where?

What improvements have you made?

Does your supply chain adhere to your corporate values?

In recent years, international suppliers have sometimes found themselves hitting the headlines – for all the wrong reasons.

Having your company aligned to one of these suppliers, or having your reputation damaged due to unforeseen circumstances, is not a risk worth taking. That's why it's imperative to quantify supply chain risk for your team globally, so you can trade with confidence, mitigate risk and build lasting resilience.



Sustainability



Sustainable practice is key to growth without compromising resources for the future

With the world's population increasing, the pressure on the environment and its natural resources is growing. Getting transparency in your organization to measure and report on consumption of natural resources will help you assess the role you are playing in key environmental issues.

Key Facts

- 93% of CEOs regard sustainability as key to the future success of their business¹
- The environmental impact of doing business costs the global economy £3.1 trillion per annum²
- Energy costs are forecast to grow by 25% over the next 10 years³

Management systems can help an organization fully evaluate its performance and demonstrate leadership and credibility to employees, key stakeholders and customers.

BSI Services

Environmental Management Systems – ISO 14001

Originally developed by BSI, ISO 14001 is the first and most establish international standard for environmental management. This international standard can help organizations to reduce environmental impact as well as grow.

Energy Management – ISO 50001

The latest best practice framework for energy management, ISO 50001 helps organizations better manage and maintain their energy consumption.

Water Footprint – ISO 14046

This new standard demonstrates an organization's leadership in environmental protection and helps manage and reduce water consumption.

Product Carbon Footprint/Carbon Neutrality - PAS 2050/PAS 2060

This standard helps organizations quantify, monitor, report and verify the carbon footprint or neutrality of a product or service.

Material Flow Cost Accounting (MFCA) – ISO 14051

A management process tool standard, ISO 14051 helps trace all materials through production and measures the output in finished products or waste material. It provides a framework which helps develop an integrated approach to optimizing the use of materials.

These services can help organizations to:

- Identify opportunities to reduce resource usage and operational costs
- Improve green credentials by reducing waste and environmental impact
- Reduce business costs associated with inefficient use of resources, materials and energy.

Social Responsibility



Demonstrate responsibility through activities that have a positive impact on society and protect human and ethical values

More now than ever, it is unacceptable to conduct business unethically or act irresponsibly. Organizations are accountable for their actions like never before and need to manage their reputational risk.

Key Facts

- Almost half the world – over 3 billion people – live on less than £2.50 a day ¹
- Every day 6,300 people die as a result of occupational accidents or work-related diseases ²
- 21 million people worldwide are estimated to be victims of forced labour – being in jobs which they are coerced or deceived into and which they cannot leave ³
- 1.3 million deaths and 50 million serious injuries occur each year in road traffic accidents ³

Corporate Social Responsibility (CSR) is about taking responsibility for the organization's supply chain actions and ensuring a positive impact on society. Third party certification can provide confidence that an organization is operating ethically.

BSI Services

Occupational Health & Safety – BS OHSAS 18001

Ensuring employee safety is critical and BS OHSAS 18001 provides an occupational health and safety framework that will help identify and mitigate risk as well as defend and protect your workforce, reputation and brand.

Road Traffic Safety – ISO 39001

This new international standard focusing on road traffic safety management provides a best practice framework to help you actively contribute to reducing the risk of death and serious injury.

Sustainable Report Assurance (SRA)

BSI's SRA processes are conducted in accordance with the internationally recognized Global Reporting Initiative guidelines (GRI) and AccountAbility AA1000 Assurance Standard.

Social Accountability – SA 8000

SA 8000 is the most widely recognized global standard for managing human rights and provides a framework for organizations to develop, maintain and apply socially acceptable practices in the workplace.

Business Social Compliance Initiative – BSCI

BSCI is a leading business-driven initiative for companies committed to improving working conditions in the global supply chain.

These standards can help organizations:

- Protect against negative publicity
- Prove transparency, visibility, trust and confidence in reporting through a trusted 3rd party
- Achieve best practice in ethical employment, trading and operation
- Maintain existing business and attract new customers and investors
- Improve relations with workers, trade unions, insurers, bankers, NGOs and customers.

¹ World Bank Development Indicators 2008
² International Labour Organization Statistics
³ World Health Organization

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