



# Managing the challenges of the ICT sector



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...making excellence a habit.<sup>TM</sup>

# Global growth in the information and communications technology industry

The ICT industry remains one of the most vibrant and dynamic global markets; as more and more people are getting connected, new applications and services are being developed and users' online experiences are expanding throughout the world.

Looking at the big picture, ITU estimates that by end of 2013, the number of fixed-broadband subscriptions will have climbed to more than 688 million. At the same time, the number of active mobile-broadband subscriptions will grow by 21 per cent between 2010 and 2013, to an estimated 2.1 billion by end of 2013; still much fewer than mobile cellular subscriptions, which will reach an estimated 6.84 billion by end of 2013.

And total global Internet users will reach an estimated 2.7 billion worldwide by end of 2013.

Due to this growth and the increasing importance of the sector to individuals, organizations and Governments the ICT industry is facing several challenges:

- There is an increasing complex regulatory environment and need to demonstrate effective corporate governance
- Increased competition on a global scale with an increasing use of collaborative business partnerships and alliances
- Pressure to address the environmental impacts of high energy consumption

- ICT hardware poses severe environmental problems both during its production and its disposal. Each stage of a computer's life, from its production, throughout its use, and into its disposal, presents environmental problems
- The need to address information security, data protection and privacy concerns.

Organizations must realize the importance of securing their systems and managing the sustainability of their operations to reduce risk and improve trust.

The BSI services outlined in this brochure address the key issues facing the ICT sector today and the foreseeable future. The ICT sector falls into 3 key areas:

## ICT Manufacturing

production of electronic components, communications and computer equipment



## ICT Services

provision of broadcast services, communication and computer equipment services and software and data services



## ICT Wholesale/Retail

sales and rental of communications and computer equipment





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, for example ISO 9001 for Quality Management, ISO 14001 for Environmental Management and ISO/IEC 27001 for Information Security.

Our standards developers, assessors and trainers include some of the world's leading ICT experts who can assist your business.

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

- **Information Security** – BSI produced the world's first information security standard in 1995, BS 7799, now ISO/IEC 27001 the world's most popular information security standard.

- **Cyber Security** – BSI has pioneered development of a standard PAS 555, which provides an outcomes-based approach to ensure confidence.
- **IT Service Management** – BSI developed BS 15000 in 2002 which was used for the basis for the development of the internationally respected ISO/IEC 20000 in 2005.
- **Data Protection** – BSI developed BS 10012 as the primary way for UK organizations to externally demonstrate best practice against their Data Protection requirements.
- **Cloud Security** – in collaboration with the Cloud Security Alliance (CSA), BSI developed CSA STAR certification which provides additional reassurance that specific cloud controls are in place.
- **Software Trustworthiness** – BSI is currently working on PAS 754 to improve the overall quality of software available to UK organizations.

As a royal charter company, with 68 offices worldwide, we have the global reach to help any organization, large or small make a difference to their business and to help manage their risks now and into the future.



...With 68 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 you address information protection, sustainability 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. An organization's competitiveness and ability to survive is determined by how well it operates.

## Key Facts

- 86% believe business continuity planning improves business resilience<sup>1</sup>
- 79% think an organization has an ethical duty to fight corruption<sup>2</sup>
- Effective partnering can reduce overall costs by 20-30% <sup>3</sup>
- Organizations that practice asset management had 15% or lower total cost of ownership <sup>4</sup>

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

### Collaborative Relationships – BS 11000

A framework for collaborative business relationships to help companies develop and manage their interactions with other organizations for maximum benefit to all.

### Asset Management – ISO 55001

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

### Business Continuity – ISO 22301

An international standard which allows organizations to identify potential threats to their business and make sure they have the capacity to deal with unexpected disruption.

### Anti-bribery – BS 10500

A best practice framework to manage bribery risk and help put adequate procedures in place to protect your organization and help fulfil your regulatory requirements.

### Quality Management – ISO 9001

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

### British Standards Online - BSOL

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
- Gain stakeholder and customer trust that your organization is managed effectively.

# ICT sector



Demonstrating best practice across the wide range of IT disciplines can reinforce your company's reputation and secure new business

Today, as information technology becomes increasingly complex and people become more connected, it is important for organizations to ensure their operations are run efficiently and that data is secure. Certification to globally recognized standards increases the credibility of an organization.

## Key Facts

- 81% of large organizations and 60% of small businesses had a security breach in 2013<sup>1</sup>
- Credit, debit and pre-paid card fraud losses totalled \$11.27 billion in 2012, up 14.6% on 2011 levels<sup>2</sup>
- 51% of organizations are reluctant to migrate to the cloud due to concerns about data security flaws<sup>1</sup>
- Global cybercrime was estimated to cost \$114 billion in 2011<sup>3</sup>

By focusing on the key risks to your organization, you can reduce the threats and impact. Third party certification can provide additional reassurance to key stakeholders that risks are being managed effectively.

## BSI Services

### Information Security – ISO/IEC 27001

The world's most widely recognized information security management system that enables organizations to effectively secure all financial and confidential data and prove to customers and stakeholders that security is paramount to the way they operate.

### IT Service Management – ISO 20000

An international standard and compatible with IT service management best practice (ITIL), this standard ensures the delivery of consistent, cost effective and quality IT services.

### CSA STAR Certification for Cloud

Following the rise in the adoption of cloud computing services and the new risks in this area, BSI has worked with the Cloud Security Alliance (CSA) to develop CSA STAR Certification to provide the extra reassurance that cloud specific security issues are being addressed and managed effectively.

### Data Protection – BS 10012

A best practice framework which specifies the requirements for a personal information management system (PIMS) and helps ensure compliance with data protection legislation.

### Telecoms – TL 9000

TL 9000 was designed specifically for the telecommunications industry. It is based around ISO 9001 and was developed by the Quality Excellence for Suppliers of Telecommunications (QuEST) Leadership Forum in response to product and service failures within the industry.

### TickITplus

TickITplus is the software and IT quality benchmark for UK businesses. It is a certification scheme designed to improve IT and software for business and industry and builds on the success of TickIT. It also pioneers process capability evaluation, helping to provide a flexible, multi-level approach to IT quality and certification assessment.

### Payment Card Industry Data Security Standard – PCI DSS\*

Administered by the PCI Security Standards Council, the purpose of the Standard is to decrease payment card fraud across the internet and increase credit card data security. Organizations that store, transmit or process card holder data must comply with PCI DSS.

These standards can help organizations to:

- Identify your specific risks and put controls in place to manage or reduce them
- Reassure stakeholders and customers that their data is protected
- Demonstrate compliance and gain status as a preferred supplier
- Provide IT services that are driven by and support business objectives
- Integrate people, processes and technology to support business growth

# Client Journey



## A guide to your journey with BSI

|                          | Understanding   | Implementing the solution  | Getting certified/assessed  | Making excellence a habit   |   |  |   |
|--------------------------|---|--|---|---|---|--|---|
| Step                     | Information gathering<br>➡ Calculating the benefits   | Preparing the organization<br>➡ Preparing an implementation plan   | Running the system<br>➡ Proving it's working  | Looking for opportunities for continual improvement   |   |  |   |
| Action                   | Understand your key business issues and business requirements<br><br>Your BSI contact<br>BSI's website and brochure<br>Standard/subscription services<br>Case studies | Understand how adopting a management system will benefit your business<br><br>Your BSI contact<br>Awareness training courses<br>Webinars<br>Case studies | Train your team, ensure the organization understands the principles and review current business practice<br><br>Your BSI contact<br>Introduction training courses<br>BSI publications<br>BSI's Entropy™ Software helps you understand the requirements and track progress | Compare your activity with your chosen standard, then prepare a gap analysis report<br><br>Your BSI contact<br>Implementation & internal auditor training courses<br>BSI GAP analysis<br>BSI's Entropy™ Software helps you identify the gaps in your system | Review the system to ensure it meets the standard's requirements<br><br>Your BSI contact<br>BSI's Entropy™ Software helps you effectively manage your systems and drive performance | BSI will carry out a system and document assessment plus a system effectiveness assessment<br><br>BSI Certification Assessment | Celebrate and promote your certification, then review the systems and processes<br><br>Lead auditor training courses<br>BSI's unique client portal helps you market your success<br>BSI's Entropy™ Software helps you effectively manage your systems and drive performance |
| BSI services to help you | Your BSI contact<br>BSI's website and brochure<br>Standard/subscription services<br>Case studies  | Your BSI contact<br>Awareness training courses<br>Webinars<br>Case studies   | Your BSI contact<br>Introduction training courses<br>BSI publications<br>BSI's Entropy™ Software helps you understand the requirements and track progress   | Your BSI contact<br>Implementation & internal auditor training courses<br>BSI GAP analysis<br>BSI's Entropy™ Software helps you identify the gaps in your system  | Your BSI contact<br>BSI's Entropy™ Software helps you effectively manage your systems and drive performance   | BSI Certification Assessment   | Lead auditor training courses<br>BSI's unique client portal helps you market your success<br>BSI's Entropy™ Software helps you effectively manage your systems and drive performance  |

## Information security

"Without robust systems in place, we could lose business. That's why we went down the standards route. We wanted to achieve best practice and demonstrate it to both commercial and government clients, who are insisting on it."

**Bill Millar, Head of Security, Infrastructure Outsourcing Services, Capgemini UK**

"Taking a standards-based approach to information security has changed the way we work as an organization, supporting our business growth whilst allowing us to keep our core values."

**Cordelia Maden, Talent Manager, SVM Europe**

## CSA Star Certification

"The CSA STAR Certification offers a path to improvement that's truly rigorous. And because it is audited by an independent body, it holds infinitely more weight than existing self-assessment/self declaration models."

**Fergus Kennedy, Head of Compliance and Information Systems, Pulsant.**

## TickITplus

TickIT provided the benchmark to create reliable, repeatable processes, putting an end to 'firefighting' and freeing up time and space to enable us to innovate and delight our customers. We thrive upon the challenge of new projects in the knowledge that we will consistently deliver quality products and services on time and to budget, every time... TickITplus has started us on this journey, and paves the way for further improvement."

**Sara McCartney, Finance and Operations Director, Geoplan**

## Business Continuity

"Achieving ISO 22301 certification demonstrates our commitment to providing a reliable high quality service to our customers. It shows that we have resources, investment and processes in place to protect ourselves from potential service disruption therefore minimizing impact on our customers."

**Derek McManus, CCO and Board BC Champion, Telefónica UK Ltd**

# 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 priority<sup>1</sup>
- 75% of organizations recorded at least one supply chain disruption in 2013<sup>2</sup>
- 55% of organizations experienced productivity loss as a result of a supply chain incident<sup>2</sup>
- 45% of executives lack confidence in their supply chain risk management programmes<sup>3</sup>

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.

### SCREEN Intelligence

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

### Supplier Compliance Manager (SCM) Platform

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

Find out more at  
[www.supplychainsecurity.com](http://www.supplychainsecurity.com)

# Supply Chain Stress Test



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

Customers, journalists, directors, NGO's, 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?

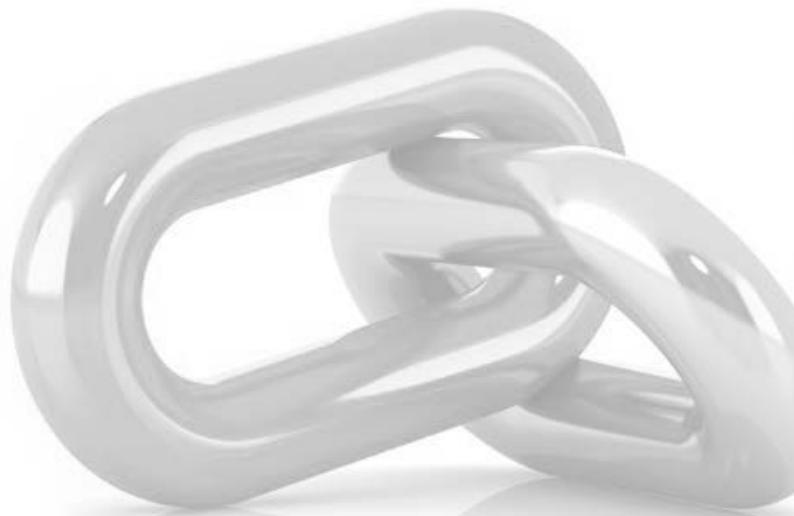
What are the issues and where?

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 business<sup>1</sup>
- The environmental impact of doing business costs the global economy £3.1 trillion per annum<sup>2</sup>
- Energy costs are forecast to grow by 25% over the next 10 years <sup>3</sup>
- The number of computers and tablets produced is expected to rise from 135 million in 2000 to over 700 million by the end of 2016 <sup>4</sup>

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

The first and most established international standard for environmental management, originally developed by BSI in 1992. 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 helps organizations better manage and maintain their energy consumption.

#### Water Footprint – ISO 14046

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

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

Helping to 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 which 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<sup>1</sup>
- Every day 6,300 people die as a result of occupational accidents or work-related diseases<sup>2</sup>
- 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<sup>3</sup>
- 1.3 million deaths and 50 million serious injuries occur each year in road traffic accidents<sup>3</sup>

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

The new international standard focusing on road traffic safety management that provides a framework to help you consider how you interact with the road network and develop your organizations contribution to reducing the risk of death and serious injury on our roads.

### Sustainable Report Assurance

BSI's SRA processes are conducted in accordance with the globally 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 worldwide.

These standards can help organizations:

- Protect against any 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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