BCSA Limited is the national organisation for the steel construction industry: its Member companies undertake the design, fabrication and erection of steelwork for all forms of construction in building and civil engineering. Industry Members are those principal companies involved in the direct supply to all or some Members of components, materials or products. Corporate Members are clients, main contractors, professional offices, educational establishments etc which support the development of national specifications, quality, fabrication and erection techniques, overall industry efficiency and good practice.

The principal objectives of the Association are to promote the use of structural steelwork; to assist specifiers and clients; to ensure that the capabilities and activities of the industry are widely understood and to provide members with professional services in technical, commercial, contractual, certification and health and safety matters. The Association’s aim is to influence the trading environment in which member companies have to operate in order to improve their profitability.

The Review covers the period July 2015 to June 2016

Introduction ........................................... 3
Commercial and Contractual ...................... 4
Process and Technical .............................. 8
Sustainability ........................................ 14
Health and Safety .................................. 16
Human Resources and Training ................... 20
Marketing and Communications ................. 24
Steel for Life ........................................ 28
Membership ........................................ 30
RQSC Bridgeworks ................................. 36
Steel Construction Certification Scheme ......... 38
Consumption of Constructional Steelwork ...... 42
KPMG Capacity Study ............................... 44

BCSA Limited
4 Whitehall Court, Westminster, London SW1A 2ES
Tel: +44 (0) 20 7839 8566
Email: postroom@steelconstruction.org
Web: www.SteelConstruction.org
www.SteelConstruction.info
INTRODUCTION

2015/2016 has been a year of change for the structural steelwork sector.

The launch of Steel for Life in February 2016 marked a new phase for constructional steel market development, with broad supply chain support for the programme designed to maintain and grow steel’s market share.

In the key sectors in which BCSA members work, steel continues to be the material of choice. Steel’s market share of multi-storey non-residential buildings in 2015 was 65.2%, with steel’s share of office and education buildings at 68.0% and 64.0% respectively. For single-storey non-residential buildings, steel’s market share was 86.9% in 2015.

In 2015, we once again saw an increase in structural steel consumption in the UK – up 8% to 867,000 tonnes with growth in the important industrial and office sectors. As the UK’s construction industry continued to grow, a new report from KPMG found that UK steelwork contractors have sufficient capacity to meet forecast demand for constructional steelwork, without the need for capital investment.

However, these positive data are set against a difficult backdrop for UK steelmaking. While BCSA has reassured the market that the issues around UK steelmaking will not affect the structural steelwork sector’s delivery of current and future projects, BCSA and the UK constructional steelwork sector support the calls for a level playing field for UK steelmaking, as a UK supply of high quality steel creates a competitive and efficient market, and supports the UK economy.

With the requirement for Level 2 BIM for Government projects coming into force in April 2016, BCSA set up a new BIM Charter to demonstrate BIM compliance of the steelwork supply chain.

Once again I would like to thank all our members who provide the support for our Association to thrive. The contribution so many of you make to the Association and the industry is invaluable, and is the reason BCSA is able to support members with key services, advice and programmes.

BCSA STEELWORK CONTRACTOR MEMBERS:

• Are independently audited annually to ensure that they are competent to undertake various types and size of project.
• Are pre-qualified to PAS 91.
• Are awarded mutual recognition under Safety Schemes in Procurement (SSIP).

ALL MEMBERS:

• Comply with CE Marking as required by law.
• Have access to BCSA’s member resources and one-on-one advice, so they are up to date with changes to codes and standards.

Sarah McCann-Bartlett
Director General

Wendy Coney
President
COMMERCIAL AND CONTRACTS

Promoting fair procurement practices and conditions of contract in order to improve members’ commercial position

In 2015/16, BCSA’s Commercial and Contracts function undertook activities in the following areas:

Provision of Direct Advice to Members
The Director of Legal and Contractual Affairs gave advice to BCSA members, undertook pre-contractual reviews of contract conditions and other documents, and gave preliminary advice on claims and queries. BCSA also provided a range of helplines free at point of use for BCSA members covering employment and other business law, Scottish law and Irish forms of contract. BCSA also maintained a range of model documents on the Members’ Area of the BCSA website.

Commercial and Contracts Committee
BCSA’s Commercial and Contracts Committee discusses general industry issues and manages individual projects. Projects undertaken in 2015/16 included:

- Campaigning for changes to the ‘Construction Act’
  BCSA was instrumental in getting Part II of the Housing Grants, Construction and Regeneration Act 1996 enacted and over the last 20 years, as amended in 2009, it has proved to be of enormous value to the whole construction industry. However, the exclusions from the Act have always proved problematical, in particular the exclusion of supporting steelwork on process industry sites. Clearly, this affects steelwork contractors disproportionately and BCSA feels the time is right for the exclusions to be reviewed.

- Campaigning for changes to the retention system
  Payment issues continue to be important and BCSA devoted a great deal of resource to progress changes. In particular, BCSA has joined with its colleagues in the Specialist Engineering Contractors’ Group (SEC Group) to seek to persuade Government to provide that retention monies must be safeguarded while they are retained. It is acknowledged that this is an interim measure for the next few years, as Government has signalled its intention that retention should be abolished by 2025; nevertheless, it is an important first step.

- Provision of seminars
  2015 saw very successful seminars for members on the NEC3 form of subcontract, covering both pre-and post-contract activity. This will be followed in 2016 by a short series of seminars on the general theme of ‘An Introduction to Contracting’.
Office pod inside Ashton (Old) Baths, Manchester – B D Structures Ltd, image courtesy of Tameside Council
COMMERCIAL AND CONTRACTS

Promoting fair procurement practices and conditions of contract in order to improve members’ commercial position

FUTURE PROJECTS:

- Continuing expansion of the range of model documents for members, including pro formas for NEC3 notices.
- Along with SEC Group colleagues, monitoring of payment periods for projects falling under the Public Contracts Regulations 2015.
- Drawing up of guidance for BCSA’s Irish Region with respect to the Construction Contracts Act 2013.

Liaison with Government and Industry Bodies

With many of these projects, BCSA represented the views of the steel construction industry to the Westminster and devolved Governments and to other industry bodies—in particular, SEC Group, CBI, Build UK and the Construction Industry Council Liability Panel, and to other bodies as appropriate.

BCSA also issued guidance to its members and seeks to ensure its members’ views are represented with regard to European legislation. Of particular concern at the moment is the implementation of the Working Time Directive by the Working Time Regulations, and the implications with regard to holiday pay.

Provision of General Guidance

Members continued to receive general contractual and legal information via several routes, including memoranda on individual issues and legal/commercial updates; documents and checklists giving general information, maintained for members on the Members’ Area of the BCSA website. More detailed legal knowledge can be accessed from the Contractual Handbook, which is also freely available to Members on the Members’ Area of the website.

BCSA was instrumental in achieving the Construction Contracts Act 2013 in Ireland. Following the setting up of a panel of adjudicators and the institution of a Code of Practice for the conduct of adjudicators, BCSA is pleased to note that the Act will now be brought into force in summer 2016. In anticipation of its commencement, BCSA has carried out training for its Irish Region and will continue to provide guidance and advice as necessary.
University of Cambridge primary school – William Haley Engineering Ltd

IKEA store, Reading – Walter Watson Ltd

Galvanizing plant, Haverhill – TSI Structures Ltd

Lune West Bridge over the River Lune, Heysham to M6 link road – Cleveland Bridge UK Ltd
BCSA’s Process and Technical team achieved the following in 2015/16:

**Advice to Members**

BCSA provided comprehensive technical advice and support to member companies, clients, specifiers, designers and contractors. This ongoing service included:

- Response to specific technical enquiries.
- Member visits to advise on fabrication and welding systems.
- Advice on CE Marking.
- Advice on Building Information Modelling.

BCSA steelwork contractor members also receive complimentary membership of the Steel Construction Institute (SCI) as part of their BCSA membership package.

**CE Marking and the Construction Products Regulation**

In 2015/16 BCSA focussed on providing advice on CE Marking and, in particular, the scope of EN 1090-1 to BCSA members. BCSA also educated the wider construction industry on CE Marking through presentations to main contractors and specifiers, and continued to lobby Government to take a stronger approach to the policing of CE Marking.

BCSA entered into a Primary Authority Agreement (PAA) with Kent County Council. One of the major benefits of the PAA is that the Primary Authority (Kent County Council Training Standards) will become an ‘expert’ on the constructional steelwork industry, and will be able to provide useful, authoritative and reliable advice on what the industry needs to do to comply with CE Marking and the Construction Products Regulation (CPR).

The close relationship that BCSA has developed with Kent County Council means that Kent County Council has developed a good understanding of the issues facing the industry, and is helping inspectors from authorities throughout the UK to better understand the challenges the industry faces when complying with the law.

**Codes and Standards**

BCSA is represented on key BSI, CEN and European technical committees, and strives to provide practical advice to shape and influence the development of new codes and standards and the maintenance of existing codes and standards. These standards include:

- National and European design and execution standards.
- Product standards (including bolts and welds).
- Harmonised standards for CE Marking.

Key developments in these standards include:

- Input into the amendments of EN 1090-1, EN 1090-2, EN 1090-4.
- Input into the systematic review of the Eurocodes.
Next distribution centre, Doncaster – steel purlins and side rails supplied by voestalpine Metsec Plc
Technical Development Programme

In 2015/2016 BCSA completed the legacy work from the Joint Generic Market Development Agreement with Tata Steel. This programme included the following projects:

- Vibration performance of floors.
- Partial interaction in composite beams.
- Appropriate anchorage of parallel decking.
- Tying resistance of end-plate connections to webs and hollow sections.

In February 2016, BCSA launched its Steel for Life market development initiative which is currently developing a new programme of technical development work to support the objectives of the new Advisory Board.

www.steelconstruction.info

The www.steelconstruction.info web site, which was launched in 2012, is regularly updated with the latest technical information as well as video and case studies, and continues to be an excellent source of information on steel construction for the wider construction industry.

New articles and content added in 2015/16 included:

- Project case studies.
- Articles covering the cost of structural steelwork have been updated.
- The following publications have been uploaded and embedded:
  - ‘Design of Steel Portal Buildings to Eurocode 3’
  - ‘Minimum degree of shear connection rules for UK construction to Eurocode 4’
  - ‘Determining design displacements for bridge movement bearings’
  - ‘Guidance notes on best practice in steel bridge construction (6th Issue)’
- A major new article on the ‘Design of steel footbridges’ has been added.
- The web-based ‘Composite beam checking tool’ has been upgraded.
- A new web-based ‘Frame stability tool’ has been added.

Over 20 main articles and 12 online CPD videos have been reviewed and updated as part of a formal maintenance programme to ensure that technical information on the website remains up-to-date.

The website receives an average of over 190,000 visits each month.
26-metre high steel frame partition for the European Games in Baku, Azerbaijan – BW Industries Ltd

Nottingham train station – Adey Steel Ltd
Building Information Modelling

On 1 April 2016 the Government required ‘collaborative 3D Building Information Modelling (BIM)’ on all of its centrally procured projects in England, Wales and Northern Ireland. In Scotland BIM will be a requirement on all centrally procured projects from 1 April 2017.

BIM Training Course
BCSA held eight BIM Training Courses around the UK and RoI in 2015/16. This one-day training course focused on the standards that support BIM such as PAS 1192-2:2013, the Building Information Model (BIM) Protocol and many of the background publications. The course also looked at the practical and legal implications of BIM and the benefits of BIM for the constructional steelwork industry. Attendees numbered over 100 people from 57 different BCSA companies.

BIM Charter
In March 2016 BCSA launched ‘The Steel Construction Building Information Modelling (BIM) Charter’. The Charter was set up to enable companies to be certified against the requirements of both PAS 91:2013 and PAS 1192-2:2013. Compliance with the Charter demonstrates that the company has a documented policy, systems and procedures to achieve ‘Level 2 BIM’ maturity as defined by PAS 1192-2:2013. Companies can also use the Charter to demonstrate to clients they are Level 2 BIM compliant. A number of companies have already been awarded Charter status.
Steel’s sustainability credentials continued to strengthen in 2015/16. BCSA’s annual attitudinal survey showed that even more clients, specifiers and main contractors feel that steel is a more sustainable construction material than concrete. In addition, the focus on the more robust cradle-to-cradle approach to carbon accounting has resulted in a greater understanding of how steel can compete on a sustainability footing against timber.

**Sustainable Procurement**

Sustainable procurement remains important and more clients are requiring their suppliers to be accredited to the Building Research Establishment’s sustainable procurement standard, BES 6001. *Framework Standard for the Responsible Sourcing of Construction Products*. Both Tata Steel/Longs Steel UK and ArcelorMittal have BES 6001 accreditation. While it is generally sufficient for the steelmaker to have BES 6001 accreditation, a number of steelwork contractors have also chosen to obtain accreditation to the standard. BCSA’s online Membership Directories list the accreditations each member company holds.

The issues in UK steelmaking at the end of 2015 and into 2016 resulted in changes to procurement of steel for major government construction projects. The roll out of a new Public Procurement Note and supporting guidelines designed to support the UK steelmaking sector focused heavily on sustainability, including sustainable sourcing, skills and training, and contribution to UK employment.

**Reuse as part of the Circular Economy**

With a greater focus on the Circular Economy, BCSA and its members are emphasising how steel structures are inherently reusable in full or part at the end of their life. Whole buildings can be taken down and rebuilt elsewhere or individual elements can be reused. Any steel which is not reused is captured and recycled for further use in construction or elsewhere.

**BCSA Sustainability Group**

The BCSA Sustainability Group continues to meet three times a year. It exists to anticipate the opportunities and threats for the steel construction sector created by the increasing emphasis on sustainability in the UK economy.

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**FUTURE PROJECTS:**

- Monitoring developments in the reuse of steel.
- Supporting the responsible sourcing of steel.
- Promoting the Steel Construction Sustainability Charter as a route for the responsible sourcing of structural steelwork.
HEALTH AND SAFETY

Sharing experience and knowledge to ensure good working practices and reduce health and safety incidents

Health and Injury

The accident frequency rate among BCSA members in 2015 remained low. The rate of 0.4 for 2015 was based on the injuries reported under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations.

The frequency rate is measured by calculating the number of reportable injuries by one hundred thousand and then dividing by the hours worked. The one hundred thousand represents the working lifetime of a person, so the resulting frequency rate will give an indication of how many reportable injuries a person may experience in their working life.

The drive to reduce injuries in the constructional steelwork industry has been a focus of BCSA members. This is achieved by identifying injury trends and then sharing members’ combined knowledge.

Vehicle Load Security Guide

The BCSA Health and Safety Committee developed and published a guidance document, ‘Vehicle - Fabricated Steel Load Security’, to help members identify what is good practice for load security. The document includes a pro forma ‘fabricated steel vehicle loading plan’ that will need to travel with each load as a means of demonstrating that guidance has been considered if the vehicle should be stopped in transit for an inspection by the authority.

Welding Fume Hazard Information Pack

The Health and Safety Executive (HSE) Field Operations Directorate (FOD) 2015/16 outlines the proactive inspection programme to manufacturing industries where exposure to materials containing asthmagens and/or carcinogens are used, produced or process generated. The Directorate focuses on reducing serious ill health by ensuring the appropriate controls are in place.

Ill health effects from exposure to respiratory sensitizers and/or carcinogens can be chronic and life-changing. Every year many workers in a wide variety of industries develop occupational asthma or occupational cancer as a result of exposures to substances in their workplace.

BCSA worked with the HSE to develop a weld fume hazard information pack which gives guidance on how to manage weld fume and provides training information for those in the workplace that may be exposed to weld fumes.

FUTURE PROJECTS:

• Slips, trips and falls campaign.
• Behavioural safety – individual awareness.
• Lifting and positioning of non-steel products.
HEALTH AND SAFETY

Sharing experience and knowledge to ensure good working practices reduce health and safety incidents

Health and Safety Forums
BCSA works with other Trade Associations to establish common areas of health and safety concern. The following Forums are actively attended:
• Specialist Engineering Contractors’ (SEC) Health and Safety Group.
• Engineering Construction Industry Association (ECIA).
• Metals Industry Forum Health & Safety Working Group.
• Small Business Trade Association Forum (SBTAF).
• Mobile Elevating Work Platforms (MEWPs) UK Safety Forum.
• Royal Society for the Prevention of Accidents (RoSPA).
• Institution of Occupational Safety and Health (IOSH).
• Safety Schemes in Procurement (SSIP).
• Weld Fume Exposure Forum (HSE).

Mobile Elevating Work Platforms (MEWPs)
BCSA continues to be actively involved in the MEWP safety forum and has ensured the guidance documents that are produced by the Health and Safety Executive and Build UK are not putting members at a disadvantage.

Competence Checklist
The Management of Health and Safety at Work Regulations give a duty on the employer to ensure that any individual performing a task on their behalf has the competence to do so, without putting the health and safety of themselves or others at significant risk. To assist members to be able to demonstrate that their employees are competent to carry out the tasks on behalf of the company, BCSA’s Health and Safety Committee drafted competency checklists. The checklists can be used by the supervisor or other appropriate personnel to establish whether or not a new employee meets the required level expected from an experienced employee, or to identify a training need. The checklists can also be used to confirm that an appropriate level has been achieved following training.

SSIP Safety Schemes in Procurement (SSIP)
BCSA is a registered member of the Safety Schemes in Procurement (SSIP) which is an umbrella organisation for pre-qualification schemes that offers mutual recognition. The benefit to Members is that the BCSA’s health and safety assessment is recognised by all of the other SSIP registered organisations. Hence if a Member needs to register with another scheme that is also SSIP registered, the BCSA Membership Assessment Certificate (which includes the SSIP logo where applicable) can be used as evidence to show they have already met the health and safety core criteria.

To maintain its registered membership status BCSA is audited each year to ensure that Members meet the minimum health and safety requirements, known as the ‘core criteria’, for health and safety.
Production facility at former HMS Daedalus site, Lee-on-Solent – Southern Fabrications (Sussex) Ltd

Extension and conversion of office block to residential space, 160 Brompton Road, London – SDM Fabrication Ltd

Gantry steelwork and secondary products, Three Bridges depot, near Crawley – Access Design & Engineering

TCB installation support being used on site at Capital Towers development – Tension Control Bolts Ltd
In 2015/16 BCSA expanded its training services for members and the constructional steelwork industry.

**Trailblazer Programme**

The Trailblazer Programme is a Government initiative to develop training standards for apprenticeships. Standards must be written by employer groups. BCSA participated in the development of the ‘Level 2 Welder Standard’ and a BCSA employer group developed the ‘Structural Steelwork Fabricator Standard’. Currently under development is the ‘Structural Steelwork Erector Standard’. ‘Expression of interest’ letters have been submitted to develop standards for Metal Decking Installers and for Industrial Coatings Applicators.

Some concerns now exist as the new apprenticeship framework will be based on the mandatory apprenticeship levy which is being imposed by the Government on companies with a ‘paybill’ over £3 million. To access the funding created by the levy, the apprenticeship needs to involve external training providers, independent assessment organisations and external quality assurance. The Department for Business, Innovation & Skills (BIS) is also insisting on a minimum level of English and mathematics qualifications for apprentices. BCSA continues to lobby for its industry approved training scheme (CRAFT) to be eligible for levy funding.

**CRAFT Apprenticeship Scheme**

BCSA introduced its CRAFT training scheme in July 2014 to address industry training needs. The CRAFT certificate for a welder, fabricator or fabricator/welder has been accepted as a BIS Trailblazer standard. A CRAFT certificate for a steel erector has also been developed, although this has not yet been accepted as a BIS Trailblazer standard. Since CRAFT was launched, BCSA members have registered 30 apprentices onto the apprenticeship scheme.

**Bolting Competency Training**

BCSA has an e-learning programme for Bolting Competency; this is the first step for those that need to meet the requirements of the National Highways Sector Scheme 20 Bolting Coordinator role (Bridgework). Following the successful completion of the bolting competency training course and test, the candidates can then advance to the Bolting Coordinator training. This requires them to provide evidence as described in the BCSA Bolting Standard and also to train the company specific practitioners and inspectors (based on material provided by the BCSA). Once this evidence has been assessed by BCSA a Bolting Coordinator certificate is issued.

**Welding Competency Training**

An e-learning course has been developed to enable BCSA members to familiarise themselves with the correct terminology used in welding, and to learn the basic methods and processes used in welding. The training can be taken over a period of time that is appropriate to the individual, based on prior experience and knowledge. Upon successful completion of the end of course test a Welding Competency certificate is made available.
HUMAN RESOURCES AND TRAINING

Supporting a skilled and qualified workforce

FUTURE PROJECTS:

• BCSA is developing a modular-based course for Steel Detailing that will be a workplace-based training and validation process. The training modules will help to develop specific information required for those new to the industry, or those who have some experience but are up-skilling to a new role. The course will become part of the CRAFT suite of training.

• A new CRAFT course is also under development for Industrial Surface Preparation and Coating, which will give a recognised route to competency for those that operate blasting and painting equipment in a fabrication workshop.

Metal Decking Installer Certificate

This course is currently available for trainee metal decking installers and stud welding, and is also under development as an Apprenticeship Trailblazer. On successful completion of this training and validation a BCSA CRAFT certificate in metal decking will be awarded. An experienced worker assessment route is also associated with the training material for those that have worked in the industry. The certificate currently gives access to the CSCS Blue Skilled Worker card.

Structural Steelwork Erector Certificate

This course is under development as an Apprenticeship Trailblazer and will be for trainee steel erectors. On successful completion of this training and validation a BCSA CRAFT certificate in steel erection will be awarded.
Apprentice carrying out a weld on a 6-metre diameter shutter for a wind farm column base – AJ Engineering & Construction Services Ltd
MARKETING AND COMMUNICATIONS

Celebrating the success of structural steelwork and ensuring that it remains the material of choice

BCSA undertook significant marketing activities in 2015, as part of the Joint Generic Market Development Agreement with Tata Steel, and into 2016 with Steel for Life:

### Structural Steel Design Awards

The 2015 Awards presentation took place on 1 July 2015 at One Great George Street in London, home of the Institution of Civil Engineers.

The objective of the Structural Steel Design Awards (SSDA) is to recognise and celebrate the excellence of the UK and the Republic of Ireland in the field of steel construction, particularly demonstrating its potential in terms of sustainability, efficiency, cost-effectiveness, aesthetics and innovation.

Entries for the Awards, sponsored by BCSA and Tata Steel, continue to demonstrate increasingly high standards, not only in design and fabrication, but also in speed, quality, health and safety, and environmental awareness.

The independent judging panel visits each of the shortlisted entries to ensure that the project lives up to the promise shown by the entry on paper.

The Awards have made a significant contribution to the high market share of steel-framed construction.

### Social Media

Social media, including Twitter, Facebook, LinkedIn, Google+ and our own YouTube channel, have been increasingly used to engage with specifiers to further promote www.steelconstruction.info and key issues.

### New Steel Construction magazine

New Steel Construction (NSC) continued to be published in association with the SCI.

By popular demand NSC magazine returned to print with the July/August issue following a year-long trial in a digital only format. It continues to be published in both print and digital formats with 10 issues per year, supported by a Weekly News service.

Email alerts for each issue were sent to approximately 5,700 named specifiers from across the construction supply chain, and the print format circulation was 4,000. The magazine is also available directly on www.newsteelconstruction.com

January 2016 also saw the publication of the NSC Annual Review. This 36-page publication reflected on key projects featured in 2015, highlighting the benefits of steel construction and showcasing the technical output of the steel sector through the year. 30,000 copies were distributed with Construction News, Building magazine and the Architects Journal.

### Marketing BCSA members

A targeted email shot with Construction Enquirer promoted the benefits of using a BCSA member to main contractors and clients.
The Wing, World War Memorial and Visitor Centre, Capel-le-Ferne – galvanizing undertaken by Wedge Group Galvanizing Ltd

Pipe support steelwork for the new Ethane Pipeline, Petrolneos, Grangemouth – Legge Steel (Fabrications) Ltd

Fabricated plate girders for Westfield Phase 2, London – Cairnhill Structures Ltd

Beam installation on the MI – Briton Fabricators Ltd
MARKETING AND COMMUNICATIONS

Celebrating the success of structural steelwork and ensuring that it remains the material of choice

FUTURE PROJECTS:
- The 2016 Structural Steel Design Awards will take place on 5 October in London.
- The Steel for Life Advisory Board is refreshing the market development strategy to ensure vital information about steel is communicated to the structural steelwork specifiers.

Construction Press

A number of regular steel construction features are now well established with the leading construction press. These aim to highlight the benefits of structural steel to the specifier target audience. In 2015 we also continued a series of design guides on key topics. A library of these features and guides can be found at http://www.steelconstruction.info/Steel_construction_news
- Steel Spotlight – a 10-page feature in Construction News, which is read widely by the industry, but particularly popular with contractors
- Steel Insight – a quarterly feature in Building magazine, written by Gardiner & Theobald, to assist quantity surveyors with up-to-date information and guidance on the realistic pricing of structural steelwork
- Structural Steelwork in Action – a 10-page biannual supplement in New Civil Engineer, the membership magazine of the Institution of Civil Engineers
- Steel Intelligence – a 10-page quarterly supplement in RIBA Journal, the official publication of the Royal Institute of British Architects, covering steel construction project case studies and current topics of interest
- Steel Construction: Cost – a 40-page supplement giving an overview of how to price structural steelwork, the key factors to be considered and providing a review of the cost competitiveness of structural steelwork (updated quarterly)
- Steel Construction: CE Marking – an 18-page overview of what the various parties in the construction supply chain need to do to comply with the Construction Products Regulation, updated to reflect a significant change in the procedure for selecting the Execution Class for a structure
- Steel Construction: Floor vibration – a 24-page supplement giving an overview of the issue, demonstrating how steel solutions meet even the strictest performance criteria and introducing a new simplified web-based assessment tool
- SSDA commemorative brochure – this reviewed the shortlisted projects, as well as those that received Awards and Commendations

FUTURE PROJECTS:
- The 2016 Structural Steel Design Awards will take place on 5 October in London.
- The Steel for Life Advisory Board is refreshing the market development strategy to ensure vital information about steel is communicated to the structural steelwork specifiers.

MARKETING COMMUNICATIONS

Celebrating the success of structural steelwork and ensuring that it remains the material of choice
The Joint Generic Market Development Agreement between BCSA and Tata Steel ended in October 2015. The Agreement had run for six years; with a market development outspend averaging £1.2 million a year. BCSA is committed to maintaining a robust and effective market development programme to ensure that members continue to benefit from the high market share that steel currently enjoys in the UK. To that end, in 2015/16 it established a new wholly-owned subsidiary to deliver steel market development, with funding provided by sponsors across the whole supply chain.

This industry-wide approach provides significant benefits including:

- Improved effectiveness.
- Use of BCSA’s committee structure to generate market facing ideas.
- Perception of the structural steelwork sector as an integrated supply chain.
- Consistent messaging from the whole steelwork supply chain.
- Ability to have a single steel construction information portal through www.steelconstruction.info

About Steel for Life

The new company, Steel for Life, was launched in February and is staffed by two full-time employees in strategic marketing and technical development. It is governed by an independent Advisory Board, comprising BCSA members and headline sponsors.

Steel for Life’s key purpose is to communicate and disseminate the advantages that steel offers to the construction sector, which make it the material of choice for a wide range of buildings, bridges and other structures. Steel for Life will engage with and support clients, architects, engineers, main contractors and cost consultants, providing knowledge, support and tools for specifying and designing in steel.

The first Advisory Board meeting has been held and the strategic planning/priority setting process is well under way. In the interim an ongoing programme of market development activity has continued including NSC magazine, supplements in the construction press, quarterly cost updates, promotion of www.steelconstruction.info and technical development work on floor vibrations.
Headline sponsors:

Gold sponsors: AJN Steelstock Ltd | Ficep UK Ltd | Kingspan Limited | National Tube Stockholders and Cleveland Steel & Tubes | ParkerSteel | voestalpine Metsec Plc | Wedge Group Galvanizing

Silver sponsors: Hadley Group, Building Products Division | Jack Tighe Ltd

Bronze sponsors: BAPP Group of Companies | Barnshaw Section Benders Ltd | Hempel | Joseph Ash Galvanizing | Kaltenbach Limited | Kloeckner Metals UK | Sherwin-Williams | Tension Control Bolts Ltd | Voortman Steel Machinery

As at 31 May 2016
MEMBERSHIP

Demonstrating competence and registering capability, resulting in improved service and client confidence

Membership Services

The Association is a focal point at local, national and international level for the steel construction industry, acting as its representative body and central management services organisation. On behalf of its members, BCSA:

• Promotes the interests of the industry and the use of steel in construction.
• Provides members with professional advice.
• Provides members with opportunities to meet and discuss matters of common interest.
• Promotes the capabilities and expertise of the industry to specifiers.
• Helps specifiers and clients achieve cost-effective solutions through technical excellence.
• Organises seminars and courses.
• Publishes technical publications.
• Represents members’ interests to government, local government, public bodies and professional institutions.

BCSA members have access to a wide range of services and benefits, both professional and economic, which are focused on helping the company, including a professional Head Office advisory service on a variety of topics. A comprehensive briefing and information package is issued to members electronically on an almost daily basis to keep them fully informed on current matters.

There are three categories of membership:

Member companies undertake the design, fabrication and erection of all forms of construction in building and civil engineering.

Industry members are those principal companies involved in the direct supply to all or some Members of components, materials or products.

Corporate members are clients, professional offices, educational establishments etc which support the development of the national specifications, health and safety, quality, fabrication and erection techniques, overall industry efficiency and good practice.

Selecting a Steelwork Contractor

To select a steelwork contractor for tender lists there is no easier way of prequalifying companies than using the BCSA Membership Directories for Buildings and Bridgeworks, which can be found on www.steelconstruction.org/directories
The Directories should be used to select a steelwork contractor who has the special skills to suit your project. BCSA’s experienced professional assessors visit all companies to assess their capabilities in 14 Categories of building steelwork and 8 Sub-categories of bridge construction.

The Categories give guidance on what type of steelwork the company is competent to undertake, which relates to the company’s work facilities, its track record and its technical and management experience.

The Buildings Categories attainable refer to the type of steelwork for which a company can be assessed. Each applicant is independently assessed during a visit by reference to a range of competence criteria including technical and managerial. Companies can attain just one category, for one type of steelwork, or two or more.

Support steelwork for extension to Stanbrook Abbey, Worcestershire – Coventry Construction Ltd

Distribution depot for DHL, Lewisham – Snashall Steel Fabrications Co Ltd
MEMBERSHIP

Demonstrating competence and registering capability, resulting in improved service and client confidence

Buildings Categories:

C  Heavy industrial platework for plant structures, bunkers, hoppers, silos etc
D  High rise buildings (offices etc over 15 storeys)
E  Large span portals (over 30m)
F  Medium/small span portals (up to 30m) and low rise buildings (up to 4 storeys)
G  Medium rise buildings (from 5 to 15 storeys)
H  Large span trusswork (over 20m)
J  Tubular steelwork where tubular construction forms a major part of the structure
K  Towers and masts
L  Architectural steelwork for staircases, balconies, canopies etc
M  Frames for machinery, supports for plant and conveyors
N  Large grandstands and stadia (over 5000 persons)
Q  Specialist fabrication services (eg bending, cellular/castellated beams, plate girders)
R  Refurbishment
S  Lighter fabrications including fire escapes, ladders and catwalks

The Directories also classify companies by suggesting a maximum contract value that they should handle. The Class gives guidance on the size of steelwork contract which the company has the financial and management resources to undertake.

There are over 90 member companies of the BCSA, and this provides users with plenty of choice to ensure a competitive tender list. Membership of BCSA is open to any steelwork contractor who has a fabrication facility within the United Kingdom or the Republic of Ireland.

See http://www.steelconstruction.org/directories/buildings.html
King's Cross Central, 3 Pancras Square, London – Severfield (NI) Ltd

Markham Vale distribution unit – Severfield (Design & Build) Ltd

Sports hall, Bohunt School – Four Bay Structures Ltd

Aircraft hangar, RAF Brize Norton, Oxfordshire – Billington Structures Ltd
MEMBERSHIP

Demonstrating competence and registering capability, resulting in improved service and client confidence

Selecting a Product Supplier

Industry Members are those principal companies involved in the direct supply to all or some Members of components, materials or products. Sub-categories of industry membership are as follows:

- Computer software.
- Design services.
- Manufacturing equipment.
- Protective systems.
- Safety systems.
- Steel producers.
- Steel stockholders.
- Structural components.
- Structural fasteners.

Details of companies in each sub-category can be found at: www.steelconstruction.org/directories/products-services.html
Demonstrating competence and registering capability, resulting in improved service and client confidence

The Register of Qualified Steelwork Contractors Scheme for Bridgeworks (RQSC) is open to any Steelwork Contractor who has a fabrication facility within the European Union.

In order to be registered for Bridgeworks, a company must present references for completed supply and erect contracts that include at least three bridgework contracts (or contracts of similar complexity), of which two must each exceed £100,000 contract value completed within the last three years.

The company must have manufactured in-house at least 75% of the steelwork for each of the three contracts. The contracts must have required materials and workmanship to recognised bridgework Standards. At least one of the contracts must generally have required thick plate welding such as the butt welding of S355J2 plate in a thickness of at least 40 mm.

The company’s track record and the company’s systems, existing facilities and employed personnel will be used to establish its capability.

Companies can attain just one category, for one type of bridge steelwork, or two or more.

Bridgeworks Categories:

FG  Footbridges and sign gantries
PG  Bridges made principally from plate girders
TW  Bridges made principally from trusswork
BA  Bridges with stiffened complex platework (eg in decks, box girders or arch boxes)
CM  Cable-supported bridges (eg cable-stayed or suspension) and other major structures (eg 100 metre span)
MB  Moving bridges
RF  Bridge refurbishment
AS  Ancillary structures in steel associated with bridges, footbridges or sign gantries (eg grillages, purpose-made temporary works)

See http://www.steelconstruction.org/directories/bridges.html

Highways England Company Ltd, Transport Scotland and Northern Ireland’s Department for Regional Development require that companies seeking to tender for contracts involving the fabrication and erection of bridgeworks should be listed on the Register of Qualified Steelwork Contractors for the type and value of work to be undertaken.
Demand for SCCS certification services continues to grow. All Quality Management (QMS), Environmental Management (EMS) and Occupational Health & Safety Management (OHSMS) certification re-assessments and surveillance visits scheduled for 2015 were successfully completed. In addition, the initial and ongoing assessments for new QMS, EMS, OHSMS, Factory Production Control (FPC) and National Highways Sector Schemes (NHSS) clients were completed during the year. Due to the continued growth in the Scheme a Deputy Scheme Manager was appointed in September 2015. SCCS was recognised by Highways England as one of the leading certification bodies for National Highways Sector Schemes Certification. This recognition led to SCCS being acknowledged as the lead Certification Body for Sector Schemes 3, 19A and 20.

SCCS worked alongside Highways England on the revisions to NHSS 3, 19A and 20 to the published BS EN ISO 9001:2015 revised standards. During this period a proposed NHSS for Steel Stockholders (NHSS 3B) was drafted and separately reviewed. Following requests from principal contractors and clients, SCCS introduced voluntary certification for site installation compliance to BS EN 1090-2:2008+A1:2011.

UKAS Accreditation
SCCS maintained its accreditation for the Scheme’s QMS, EMS, OHSMS, NHSS 19A, NHSS 20 and NHSS 3 certification systems to BS EN ISO/IEC 17021. SCCS also maintained Notified Body status for the purposes of CE Marking of Structural Steelwork in accordance with BS EN 1090-1. 2015 saw the introduction of BS EN ISO 9001:2015 and BS EN ISO 14001:2015 and SCCS is currently working with UKAS to achieve accreditation to these transitional standards.

Quality Management (QMS)
During 2015 SCCS serviced the certification of 159 separate quality management systems (161 at Q1 2016), each of which is visited at least once per year. The need for structural steelwork contracting organisations to address the requirements for CE Marking (BS EN 1090-1), and in particular Factory Production Control (FPC), continues to attract additional interest in the development of formal quality management systems.
Lindapter Hollo-Bolts used to connect square to square hollow section and also square to circular hollow section, Central Square, Leeds.

One New Bailey, Salford - 200 tonnes of cellular beams supplied by Kloeckner Metals UK Westok.

Royal Liverpool University Hospital – Elland Steel Structures Ltd.

Hospital, Ghana – John Reid & Sons (Strucsteel) Ltd.
Environmental Management (EMS)
During 2015 SCCS serviced the certification of 34 separate environmental management systems (36 at Q1 2016).
This is an area that should not be overlooked by companies as there are legal obligations to maintain, and a well operated EMS will provide the tools to keep on top of these requirements.
This is another growth area, with several clients going through the initial certification process at the time of publication.

Health & Safety (OHSMS)
During 2015 SCCS serviced the certification of 23 separate health and safety management systems (25 at Q1 2016).
This is another area in which steelwork contractors have considerable legal obligations, and a well operated OHSMS will also give companies the tools to keep on top of requirements.

CE Marking – ‘structural steel & associated products’
During 2015 SCCS serviced the certification of 469 Factory Production Control systems (476 at Q1 2016).
SCCS also continued to perform FPC gap analyses during 2015.
There has been a significant increase in demand for FPC certification into 2016, following the unprecedented growth in 2015.

NHSS 19A – ‘corrosion protection of ferrous materials by industrial coatings’
During 2015 SCCS serviced the certification of 7 separate corrosion protection management systems in accordance with NHSS 19A (7 at Q1 2016).
This is also a growth area with several clients showing interest and going through the initial certification process at the time of publication.

NHSS 20 – ‘the execution of steelwork in transportation infrastructure assets’
During 2015 SCCS serviced the certification of 19 management system for this sector scheme (19 at Q1 2016).
It is anticipated that interest will grow over time, and it is already a requirement for companies working on Highways England contracts.

NHSS 3 – ‘stocking and distribution activities for mechanical fasteners’
During 2015 SCCS serviced the certification of 1 management system for this sector scheme (1 at Q1 2016).

CE Marking – ‘Preloaded and non-preloaded bolting assemblies’ (FPC Bolting)
During 2015 SCCS serviced the certification of 2 Factory Production Control systems for ‘Preloaded and non-preloaded bolting assemblies to BS EN 14399-1:2015 and BS EN 15048-1:2007’ (FPC for Bolting) (2 at Q1 2016).
CONSUMPTION OF CONSTRUCTIONAL STEELWORK

Steel’s Share of the UK Multi-Storey Non-Residential Market

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# UK Consumption of Constructional Steelwork

**Figures in thousand tonnes**

**Figures supplied by Tata Steel and BCSA**

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</table>
KPMG has performed a market review to compare forecast UK demand for constructional steelwork against current and future UK capacity.

The interviews held and data analysis performed suggests there is sufficient latent capacity within the UK constructional steelwork sector to meet the levels of demand for constructional steelwork currently forecast by the BCSA.

**Potential to Increase Capacity**

The BCSA forecast (January 2016) suggests there will be a requirement for 1,050,000 tonnes of constructional steelwork in 2019, an increase of 113,000 tonnes from 2015.

Through a combination of increasing shifts (including introduction of night shifts where possible), use of agency staff, and fully utilising current production facilities, a relatively significant increase in capacity could be achieved in the short term of between 205,000 and 406,000 tonnes. This would provide a UK constructional steelwork capacity of between 1,142,000 and 1,343,000 tonnes.

A lead time of up to 12 months (recruitment etc) would be required to realise all of this latent capacity.

Given the potential capacity available to many of the contributing steelwork contractors without significant capex in the short term, the theoretical maximum capacity could be significantly increased should there be sufficient market demand to drive future capex (beyond ongoing maintenance and recent machinery upgrades).

**Risks**

Recent events in the wider steelmaking industry do not provide a material short term threat to the supply chain.

While one risk is the availability of skilled staff, the industry has made significant recent investment in apprentices in order to address this.
2007 to 2019 forecast and theoretical capacity bridge

- **2007 production**: 1,493.0
- **Companies exiting market**: -148.0
- **Estimate efficiency increase (10% of 2007 production)**: 149.0
- **Reduction in consumption to 2015 (recession)**: -562.0
- **2015 production**: 937.0
- **Additional capacity required**: 113.0
- **2019 forecast production**: 1,050.0
- **Adjustment back to 2015 production**: -73.0
- **Latent capacity - interviewees only**: 138.0
- **Latent capacity - other steelwork contractors (low)**: 67.0
- **Theoretical capacity (low)**: 1,142.0
- **Theoretical capacity (based on 2015 production), minimal additional capex**: 1,343.0

Adjustment back to 2015 production level required as potential capacity increases are based on 2015 production (per Jan 2016 forecast). Interviewee capacity increase provided by Companies taking part in the review (no significant capex required). Other steelwork contractors based on extrapolation of results, with low range being 25% of extrapolated results and high being 100%.