



The CARES Sustainability Report 2021/2022

Your **Assured** Steel Products Supply Chain



SUPPLIERS

Take a look at the global reach of the scheme



PERFORMANCE

See the latest data and targets to 2025, 2030 and 2050



SPECIFY

Learn how to procure sustainability scheme certified steel products

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Introduction

About this report

This report focuses on how CARES impacts on sustainable development. It provides the context of CARES operations and the latest updates and performance of the CARES' Sustainable Constructional Steel (SCS) and Environmental Product Declaration (EPD) schemes. The data covers calendar year 2021 and updates cover changes to the scheme or its operating environment to publication in Autumn 2022. It shows how a CARES-approved supply chain for constructional steel can help reduce business risk and provide a range of other benefits. For information on our wider operations and other certification schemes, please refer to our website and annual operating plan.

The principles within the BS 8902: 2009 standard (inclusivity, integrity, stewardship and transparency), and the Global Reporting Initiative (GRI) Standard 101 (materiality, context and report quality principles) inform the report's development. 2020 is the baseline year for the sector's environmental, social and economic metrics used in the report and we report on performance to 2021, the latest year of audited data. Data for previous years is available in earlier reports on our website.

We welcome your comments and feedback on this report and on how the constructional steel sector can contribute to a sustainable future.

What is CARES?

CARES is an independent, profit for purpose certification body. Any profit is reinvested into the business to support the fulfilment of its mission. It operates for the benefit of the construction industry offering certification schemes for companies that produce materials, components or offer services, primarily to the reinforced concrete industry.

Clients specify CARES approved companies and products with the confidence that they comply with the relevant product or system standards and without the need for costly and time consuming verification testing by the purchaser or contractor.

How is CARES Accountable?

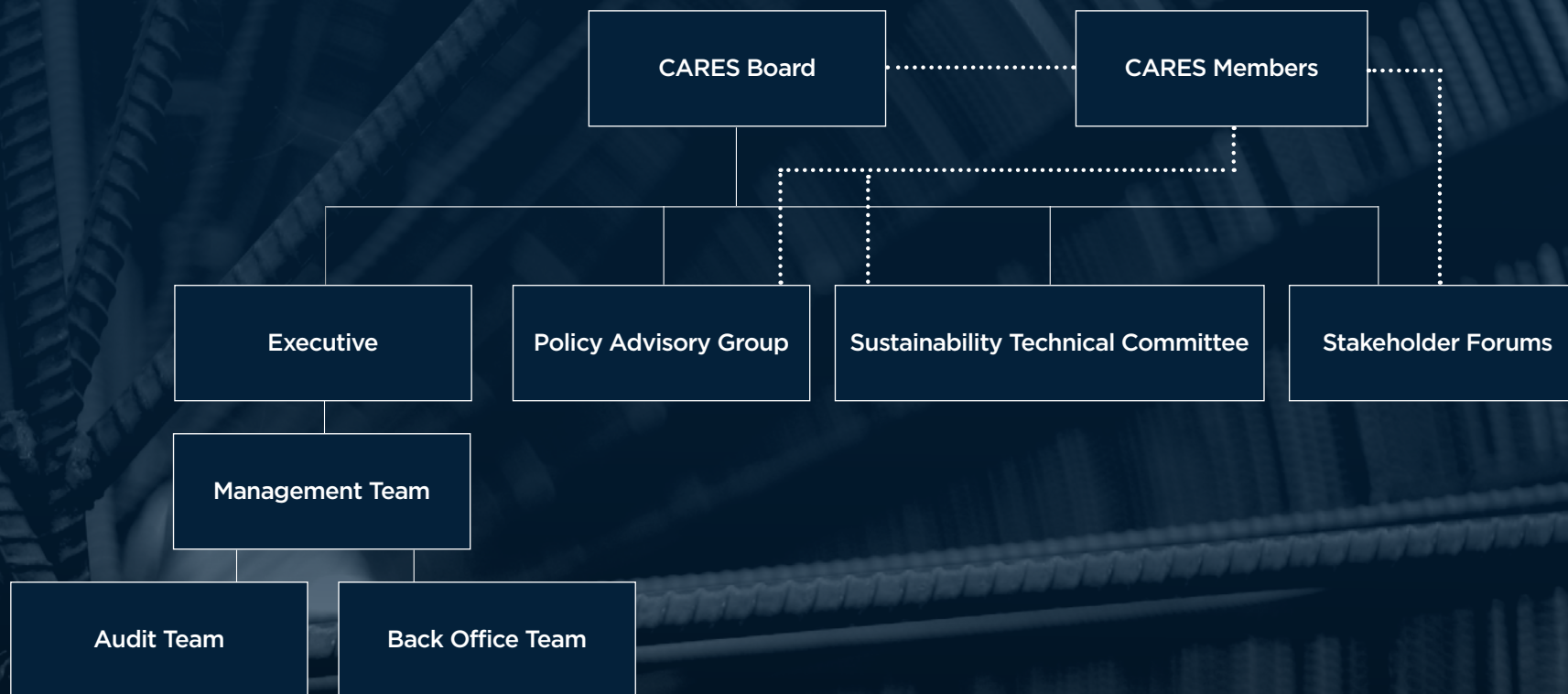
Its Policy Advisory Committee is composed of the following Members: Association of Consultancy and Engineering (ACE), Heathrow Airport Ltd, Civil Engineering Contractors Association (CECA), CONSTRUCT, National Highways, Institution of Structural Engineers (IStructE). The Chairman's nominees are representatives from; Post-Tensioning Association (PTA), UK Steel, International Steel Trade Association (ISTA), contractor MACE, the British Independent Reinforcement Fabricators Association (BIRFA), MPA Concrete Centre, Office for Nuclear Regulation (ONR/HSE) and Rail Safety and Standards Board (RSSB).

The Sustainability Committee is a technical advisory group made up of stakeholders from the construction industry, building rating organisations, independent experts and representatives from the steel industry. Its role is to review and advise on CARES sustainability schemes and activities.

CARES governance structure

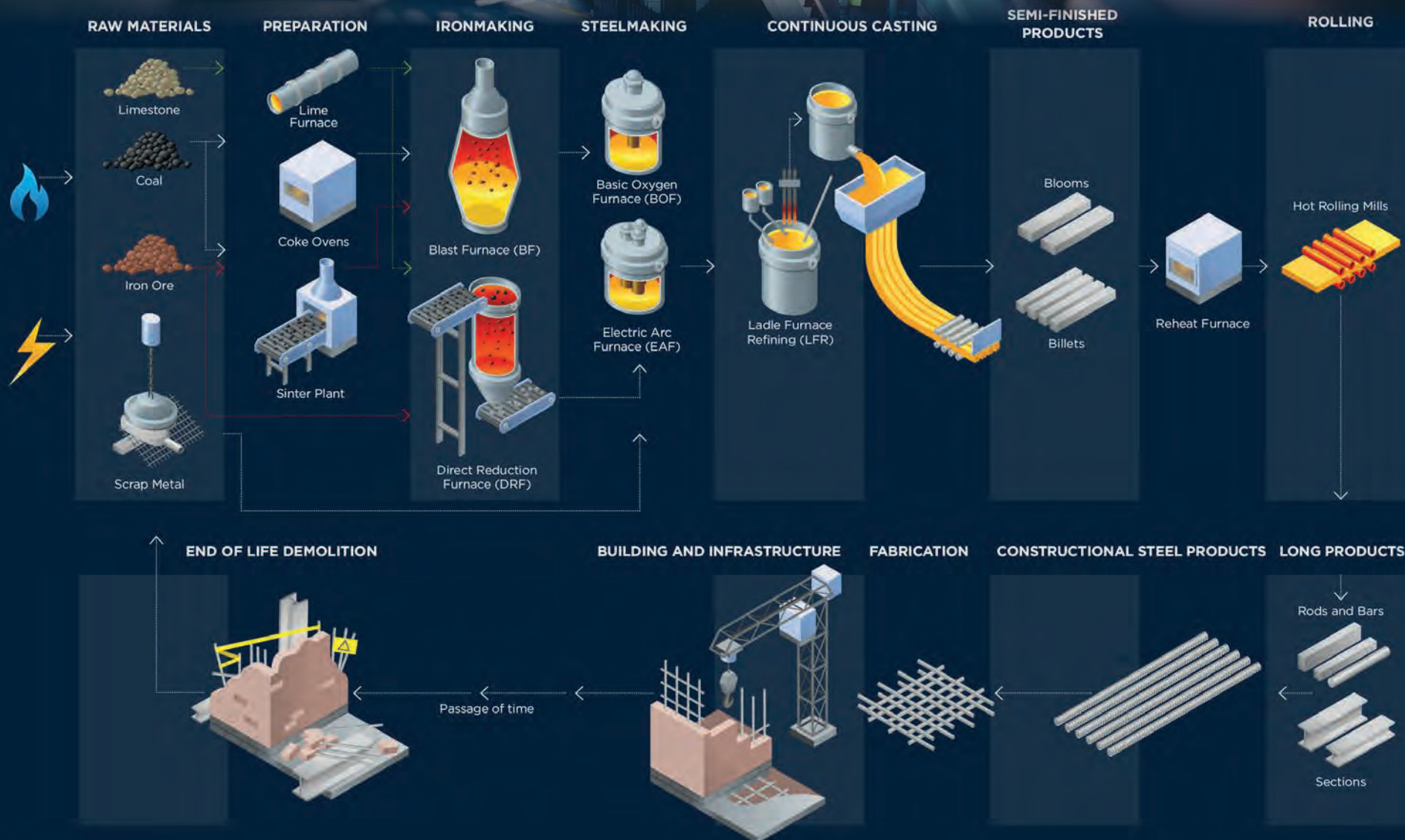


CARES governance structure



What does CARES do?

The scope of CARES certifications include all the process stages shown until the constructional steel products final use in a building or infrastructure



CEO's Statement

Maintaining confidence in a world of uncertainty



The construction sector continues to be impacted by significant global events. Covid 19 has changed our mindset and impacted our approved firms, clients and our auditors alike. It served to reinforce good health, safety and wellbeing practices and continues to impact how we audit.

The conflict in Russia brings untold suffering to our Eastern European

neighbours in Ukraine and beyond. The energy crisis is leading to significant challenges in the energy intensive steel sector and inflation in prices of all building materials and people's cost of living. A summer of record-breaking heat in the UK and Europe, floods in Pakistan and elsewhere provide a taste of the future due to accelerating climate change.

I would also like to recognise the end of an era and the start of a new one with the recent death of Queen Elizabeth II. She provided a continuity of purpose,

strength and compassion we have all drawn on and can aspire to. We celebrate her life and 70 years of service as our Queen and respectfully welcome King Charles III to the throne.

As the world's leading specialist steel certification body, our reach and the value of our role continues to grow. As the Grenfell inquiry prepares its final report, the new UK Building Safety Act 2022 and associated regulation ushers in some of the most important changes we have seen for construction and material supply chains in a generation. Similarly, we are seeing growing expectations for product conformity and associated sustainability credentials in markets we serve in Asia, the Middle-East, Europe and Australasia.

Decarbonising the construction and steel industries continues apace. Collaboration continues to enrich our understanding and ability to influence. CARES is proud to be an associate member of the SteelZero initiative, which is mobilising market demand to accelerate the transition to low emission construction steels.

Our involvement in standards development includes providing technical input into the forthcoming revision to the PAS 2080 Carbon Management in Infrastructure

specification. CARES has also supported the development of greenhouse gas and responsible sourcing criteria at ResponsibleSteel. We are delighted to have been approved to conduct audits to its standard, which is applicable to all steel manufacturing globally. As I write, our first audit using this framework is underway at Borçelik (the Arcelor Mittal/Borusan Holding Joint Venture in Turkey).

As more of our approved firms transition to version 9 of the Sustainable Constructional Steels (SCS) scheme, we have also successfully expanded our verified Environmental Product Declarations (EPD) programme, enabling more steel mills to obtain the EN 15804 compliant EPD verification.

I invite you to explore CARES' impacts on sustainability through this report and welcome your support, collaboration and feedback.

Lee Brankley
Chief Executive Officer

SCS Scheme Performance in perspective



Specifically developed for the constructional steel supply chain, the SCS scheme enables suppliers to declare the sustainability performance of in scope products manufactured at specified production sites. We are accredited by the UK Accreditation Service (UKAS) to provide certification for management systems, product conformity and sustainability management and performance schemes. The SCS scheme is compliant to BS 8902:2009 'Responsible sourcing sector certification schemes for construction products'- a framework for the management, development, content and operation of sector certification schemes applicable to the supply of construction products.

Our extended product concept explains the scope of the SCS scheme in the context of our other certification schemes and the demands placed upon a modern construction material supply chain. CARES Product conformity standards are the basis of assurance for the physical product, such as reinforcement bar or structural steels, as shown in the centre of the diagram. Clients also want reassurance beyond the physical product, extending their concern into the management of greenhouse gases, environmental impacts, human

rights and labour conditions throughout the supply chain. Effective stakeholder engagement, shown in the outermost circle, is a requirement of and underpins the scheme operation.

The scheme has a high entry level requirement. Third party certification to ISO 9001 for product quality, ISO 14001 for environmental, and ISO 45001 for Health and Safety management, are prerequisites for approval. It has 72 mandatory criteria and up to another 48 voluntary criteria (120 in total) and requires audit reporting to 34 KPI's and public reporting of material impacts and performance. Our highly skilled auditors, all with extensive steel industry experience, verify the evidence provided and make a recommendation on certification.

Recognition of higher levels of performance, beyond the mandatory pass level, can be gained through achieving 1, 2, 3 or 4 Rosettes in the CARES Rosette Rating System. Moving from mandatory certification level through the Rosette Ratings supports a transition towards science and context-based performance levels. The new aspirational '4 Rosette Rating' requires near zero emission, responsibly sourced steel production. It aims for zero harm, sustainably produced and

processed constructional steel, with a digital record. Its introduction was part of a series of improvements within the new version 9 of the scheme, based on extensive consultation, being increasingly adopted by approved firms.

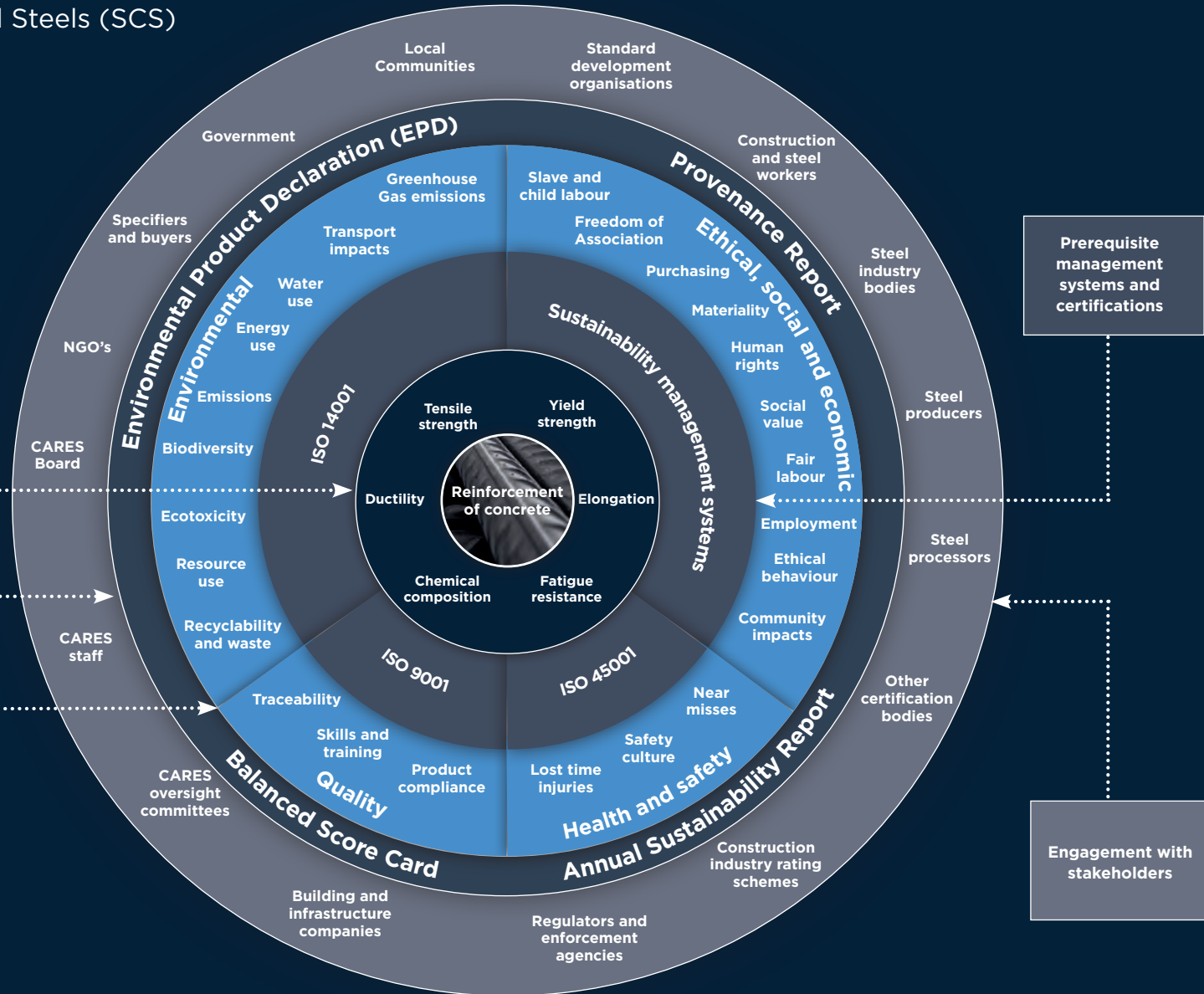
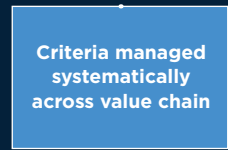
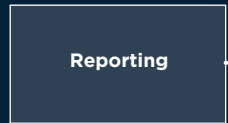
Enhanced criteria relate to science-based targets and transition pathways, align to the reporting requirements to the Taskforce for Climate Related Financial Disclosures (TCFD) and support the calculation of social value at project levels. We have digitised the Global Warming Potential (GWP) data, the embodied emissions in SCS approved constructional steel products, and have improved the accuracy of transport emission impacts down to a project level.

We collate environmental and social performance data from the KPI reporting and set targets for future performance as shown on page 13. A key benefit for the end user is that constructional steel products from CARES approved suppliers are traceable, allowing an assured, identity preserved, chain of custody from mill to site.

Extended Product Concept

Extended Product Concept

Sustainable Constructional Steels (SCS) scheme requirements



Environmental Product Declaration (EPD)

An Environmental Product Declaration (EPD) is a transparent way of communicating a Life Cycle Assessment (LCA) of the environmental impacts of a product in a common format based on common rules. The CARES EPD covers Life Cycle stages from the extraction of raw materials, through processing, manufacture, refurbishment to eventual end-of-life and disposal.

The data, checked by CARES and verified by BRE, is produced in accordance with EN 15084 (Sustainability of construction works). EPD's are produced for each supplier and as an average for all participants using the Electric Arc Furnace production route within the SCS Scheme and are available on our website. Fabricators produce simpler carbon footprints which detail their global warming impacts.

The Global Warming Potential Data from the EPD is now also available through the CARES Cloud. Accessible to contractors and clients, this innovation enables accurate data to be more easily brought into project carbon calculations and helps drive emissions reductions.

Click to download



Locations of CARES sustainability scheme-approved suppliers

- Fabricators
- Steel Mills



CARES sustainability scheme-approved suppliers Scheme Scores









CARES sustainability scheme-approved suppliers • CARES SCS & BES 6001 SCHEME SCORES

Fabricators

Steel Mills

Map















No	Auditee	SCS Certificate No	CARES SCS Score	BES6001 Certificate No	BES 6001 Score
1	Hy-Ten Reinforcement Co Ltd [Chatham, UK]	1445	2 Rosettes 	1477	Very Good
2	Midland Steel Reinforcement Supplies [London Thamesport, UK]	1287	2 Rosettes 	1476	Very Good
3	Midland Steel Reinforcement Supplies [Mountmellick, Ireland]	1340	1 Rosette 	1475	Good
4	ArcelorMittal Kent Wire Limited [Chatham, UK]	1554	1 Rosette (v9) 	1463	Good
5	ArcelorMittal Kent Wire Limited T\A AMCS [Chatham, UK]	1402	1 Rosette (v9) 	1464	Good
6	Thames Reinforcements Ltd [Sheerness, UK]	1293	1 Rosette (v9) 	1474	Very Good
7	Thames Reinforcements Ltd. [Nottingham, UK]	1749	Pass (v9)	1750	Good
8	Lemon Groundwork solutions Ltd [Creeksea, Essex, UK]	1743	Pass	1744	Pass
9	Roe Bros & Co Ltd [Peterborough, UK]	1441	Pass (v9)	1644	Good
10	Capital Reinforcing Ltd [Bromborough, UK]	1430	1 Rosette (v9) 	1469	Very Good
11	F Brazil Reinforcements Limited [Canvey Island, UK]	1352	1 Rosette 	1510	Very Good
12	Brazil & Co. (Steel) Ltd. T\A Fairyhouse Steel [Ratoath, Ireland]	1339	1 Rosette (v9) 	1491	Good
13	Reinforcement Solutions Ltd - Site B [Wolverhampton, UK]	1756	1 Rosette (v9) 	1652	Excellent
14	Total Construction Supplies Ltd - Site A [Wolverhampton, UK]			1754	Excellent
15	Outokumpu Stainless Ltd (Fabrication) [Sheffield, UK]			1603	Excellent
16	Qatar Reinforcement Company W.L.L (F41) [Doha, Qatar]	1562	Pass	1564	Pass
17	Qatar Reinforcement Company W.L.L (F36) [Doha, Qatar]	1563	Pass	1565	Pass

CARES sustainability scheme-approved suppliers • CARES SCS & BES 6001 SCHEME SCORES

Fabricators

Steel Mills

Map

No	Auditee	SCS Certificate No	CARES SCS Score	BES6001 Certificate No	BES 6001 Score
1	Outokumpu Stainless Ltd (ASR Rod Mill) [Sheffield, UK]			1602	Good
2	Liberty Steel, Rotherham Steel and Bar [Rotherham, UK]	1738	1 Rosette 	1739	Very Good
3	Izmir Demir Celik Sanayi AS [Izmir, Turkey]	1234/1392	Pass (Rebar)/Pass (Structural)	1453	Pass
4	Yazici Iron & Steel Co Inc. [Iskenderun, Turkey]	1235	1 Rosette 	1452	Good
5	HABAS A.S - Rebar [Izmir, Turkey]	1273/1434	Pass (Rebar)/Pass (Flat)	1472	Pass
6	Diler Iron and Steel Co Inc. [Kocaeli, Turkey]	1272	Pass	1460	Pass
7	Bastug Metalurji [Toprakkale, Osmaniye, Turkey]	1391	Pass	1471	Pass
8	Ekinciler Iron & Steelworks Inc. [Iskenderun, Turkey]	1239	Pass	1457	Pass
9	ICDAS Celik Enerji Tersane ve Ulasim Sanayii A.S [Canakkale, Turkey]	1285	1 Rosette 	1462	Pass
10	Kroman Celik Sanayi A.S [Kocaeli, Turkey]	1324	1 Rosette 	1461	Pass
11	Colakoglu Metalurji A.S [Kocaeli, Turkey]	1393/1429	1 Rosette (Rebar)/Pass (Flat) 	1454	Pass
12	Yesilyurt Demir Celik [Samsun, Turkey]	1437	Pass (v9)	1465	Very Good
13	Megasa Siderurgica SL [La Coruña, Spain]	1302	1 Rosette 	1467	Good
14	SN Maia - Siderurgia Nacional, S.A [Maia, Portugal]	1328	Pass	1455	Good
15	SN Seixal - Siderurgia Nacional, S.A [Seixal, Portugal]	1329	1 Rosette 	1458	Good
16	ALPA [Gargenville, France]	1344	Pass	1478	Good
17	ArcelorMittal Hamburg GmbH [Hamburg, Germany]	1319	1 Rosette 	1468	Good
18	Emirates Steel Industries [Abu Dhabi, United Arab Emirates]	1268/1338	Pass (Rebar)/Pass (Structural)	1459	Pass
19	Conares Metal Supply Ltd [Dubai, United Arab Emirates]	1377	Pass	1470	Good
20	Qatar Steel Company (QPSC) [Mesaieed, Qatar]	1282	1 Rosette (v9) 	1451	Very Good
21	Qatar Steel Company FZE [Dubai, United Arab Emirates]	1687	Pass	1688	Pass
22	Sohar Steel LLC [Sohar, Sultanate of Oman]	1532	Pass (v9)	1533	Pass
23	Union Iron & Steel Company L.L.C [Mussafah, United Arab Emirates]	1555	Pass	1556	Pass
24	Jindal Shadeed Iron and Steel LLC [Sohar, Sultanate of Oman]	1581	1 Rosette (v9) 	1582	Good
25	OJSC BMZ [Zhlobin, Belarus]	1653	1 Rosette 	1654	Pass
26	Hamriyah Steel FZC [Sharjah, United Arab Emirates]	1661	1 Rosette 	1662	Good
27	Kaptan Demir Celik Endustrisi Ve Ticaret A.S [Tekirdag, Turkey]	1678	1 Rosette 	1679	Pass
28	Al Ittefaq Steel Products Company [Dammam, Kingdom of Saudi Arabia]	1762	1 Rosette 	1763	Good
29	ArcelorMittal Kryviy Rih PJSC [Kryviy Rih, Ukraine]	1520	Pass	1521	Pass

Traceability and Digital Assurance

All CARES steels are 100% traceable at a batch and product level to the original steel producer. Many of its raw materials are also traceable to their source, with transport modes, distances and locations of key suppliers recorded as part of the scheme. Controlled blending and independent testing by CARES ensures the exact grade specified is produced with a unique cast number and the associated quality data for each cast is recorded on the CARES Upstream Cloud.

Product labelling:



When the molten steel is cast and rolled the unique CARES bar marks (as shown on the back cover of this report) are added to each piece of rebar, which enable individual mills and the country of production to be identified. It is then batched, labelled as shown and delivered to the fabricator. During cutting, bending and welding the cast number is accompanied by a 'bar schedule reference' with the 'bar mark' retained during this process and through to the construction site.

The CARES Downstream Cloud holds relevant information sought by the client including the Global Warming Potential (GWP) data from the EPD. This information can be accessed by contractors using the CARES App.

Case study



- Source Locations, Transport distances and modes for all key materials
- Risk assessment and Due diligence requirement for higher tiers of supply network

- Controlled Blending Chain of Custody
- Product conformity assurance and testing available on CARES Cloud
- CARES bar mark cast into product (see back page)
- Origin, Cast and Batch information recorded
- Bundle/Batch labels with QR codes added

- Identity preserved Chain of Custody tracing each product from mill to site
- Batch labels scanned at key locations/entry to site
- Check CARES bar mark and scan QR code for product provenance information and data using CARES App

Case Study:

Lessons learnt from Cloud Innovation Trials

Reinforcing steel is one of the most safety critical elements in any project. Working collaboratively, CARES partnered with construction contractors and clients to trial its Cloud capability on full-scale infrastructure projects. It tracked each batch of reinforcing steel from its point of origin to the construction site providing compliance and carbon footprint data plus sustainability credentials to achieve credits in BREEAM and/or CEEQUAL.

The Trial tested the ability of the CARES Cloud to demonstrate how products are effectively tested, certified, marketed, and traced from the manufacturer to the construction site. The scope included, manufacturers, traders, fabricators (processors) and contractors who install the reinforcing steels.

This Cloud-based solution was able to provide accurate, reliable, easily accessible product conformity and global warming potential for each tonne of reinforcing steel delivered, evidence of assurance and details of the journey through the supply chain. It demonstrated its ability to update BIM models with data collected from the supply chain and seamless connect to other systems via secure Application Programme Interfaces (API's).

The digital platform uses customizable dashboards and a suite of Apps to allow online and hand-held scanners and smartphones to trace what has been manufactured, procured, fabricated and delivered in real-time. It replaces existing manual paper-based processes which are labour intensive, and vulnerable to damage or malicious alteration and potentially leave significant gaps in assurance trails. The CARES Cloud will also

enable a value-based procurement approach providing a reliable digital twin of the installed (fixed) reinforcement.

The trial confirmed the ability to access real-time provenance data, secure CARES certificates of approval and carbon footprint data for the whole supply chain. Site productivity was improved by reducing operational time and costs by implementing digital recording of material receipt and demonstrating that paper proforma record sheets can be removed.

How to Specify

Case study: Lemon Groundwork Solutions

Case study: Midland Steel

Governments are increasingly requiring major projects to specify product conformity and carbon performance. For example, the UK governments PPN 0621 requires suppliers bidding for major government contracts to commit to achieving Net Zero by 2050 and publish a 'Carbon Reduction Plan.

Steel Reinforcement

All reinforcement shall conform to BS 4449, BS 4482 or BS 4483 as appropriate. All stainless steel reinforcement shall conform to BS 6744. All reinforcement shall be cut and bent in accordance with BS 8666. The reinforcement shall be obtained from firms holding valid CARES product conformity scheme certificate of approval for the production and supply of the steel reinforcement.

When specifying steel reinforcement do not refer to EN 10080 without referencing BS 4449 and the grade, B500A, B500B or B500C, because EN 10080 is an 'open Standard' and does not contain any product performance requirements.

Digital construction

All reinforcement manufacturers and suppliers shall use the 'CARES Cloud' digital traceability platform.

Sustainable construction and responsible sourcing

All reinforcement suppliers shall hold a valid CARES Sustainable Constructional Steel (SCS) Scheme Certificate of Approval for the manufacture and/or fabrication issued by CARES. They shall provide the Rosette Ratings achieved by the manufacturer and the fabricator, where achieved.

The reinforcement manufacturer shall additionally provide an independently verified Environmental Product Declaration (EPD) which conforms to EN 15804.

For more information on how to specify visit

<https://www.carescertification.com/resources/specification-guide>

Responsible Sourcing

CARES SCS
(Sustainable Constructional Steel Scheme)

Product Quality Assurance

CARES SRC
(Steel for the Reinforcement of Concrete Scheme)

Main raw materials • Recycled Scrap Metal or Direct Reduced Iron (DRI)



Case Study: Lemon Groundwork Solutions

Lemon Reinforcement, incorporated in 1978, are a manufacturer of Steel Reinforcement and Prefabrication producing over 2500 tonnes per month focusing on rapid turnaround, accompanying a full range of reinforcing accessories and heave products. Lemon have evolved into a one stop supplier for all types of Groundwork contracts across the UK.

The company operates under a strict Integrated Management System (IMS) which is independently certified by CARES (UK Certification Authority for Reinforcing Steels) and meets a wide range of other industry related CARES Standards.

Lemon Reinforcements Sustainable Policy is based on Environmental, Health and Safety, Human Rights, Social and Economic Aspects relevant to the Sustainable Production of Steel Reinforcement Bar, Stocking and distribution. It maintains a commitment to minimise the adverse effects of those impacts through the implementation and continual improvement of a Sustainable Constructional Steel Management System.

“As part of our commitment to responsible sourcing, our policy is to prioritise purchase of raw material from suppliers that hold a recognizable responsible sourcing accreditation such as BES6001, we are also able to trace 100% of this material back to the manufacturer and cast. This traceability is maintained throughout the production process and final delivery to the customer”, comments Lucy Hutchins, Lemon Group HSQE Manager.



Case Study: Midland Steel's 'Don't Walk By' safety campaign

Midland Steel are a reinforcing steel supplier specialising in offsite rebar solutions and BIM (Building Information Modelling). The company designs bespoke rebar solutions using a cloud-based BIM process, with full 3D modelling, providing superior products and expert services that are transforming the construction industry. The innovative, modular rebar solution, Fasterfix, ensures a stronger and faster way to build, keeping your project on time and budget, reducing labour cost, with a BIM based collaborative process, with a focus on quality and on expert logistics.

The rebar used in our products are sustainable, responsibly sourced and reliable, with conformity with all relevant industry standards. It uses the CARES SCS certification to provide confidence in the sustainability management of all sourcing, manufacturing, services and distribution activities.

One sustainability focus area, safety, has been enhanced by the 'Don't Walk By' campaign, developed to increase near miss reporting. Midland Steel firmly believe that the only way to reduce accident and injury rates and reach their target of zero harm is to encourage employees to think safety first and to report all hazards and near misses encountered whilst performing their roles. Tony Woods, Managing Director of Midland Steel is a strong advocate, stating that "The reporting of near miss incidents is a vital element in our Health and Safety education process. If we can't identify elements within our working environment which present a risk to employee safety then we simply can't improve."

As part of this campaign, "Don't Walk By: Report near misses" has been printed on the back of every Hi-visibility vest to reinforce this message and to keep safety at the forefront of every employee's mind.

Summary performance 2015-2021

The following table summarises performance for a range of material metrics from 2015 to 2021 and performance against the target (now from a 2020 baseline). It includes the schemes main impacts from 18 approved producers

which use recycled steel in the Electric Arc Furnace (EAF) process. This year we have also included data from other production routes where possible and plan to expand this further in future years. Fabricators impacts are quite

different and excluded from this data set as they are less material impacts across the life cycle.

SCS scheme performance in perspective

Aspect	Key Metrics	2015	2016	2017	2018	2019	2020	2021	Target 2025 ⁴	Performance achieved	Target Status
Environment	Material Efficiency - % for producer (tonnes billet, bloom or slab produced as % of total raw materials)	82.9	83.1	82.3	82.6	82.8	81.5	81.2	83	-0.3%	Off track
	Global Warming Potential (Scrap based EAF) (kg CO ₂ e per tonne of carbon steel bar produced) ^{1,2}	840	840	898	760	755	741	818	750	-15.5%	Off track
	Global Warming Potential (DRI based EAF) (kg CO ₂ e per tonne of carbon steel bar produced) ^{1,2}							1989	no target set yet		
	Water Use m ³ per tonne of steel (Scrap based EAF)	1.01	0.93	0.93	0.97	0.97	1.04	1.19	0.9	-14.0%	Off track
	Water Use m ³ per tonne of steel (All SCS approved)							1.51	no target set yet		
	Steel scrap recycled in approved product (% by mass)	96.9	98.1	97.3	94.7	95.8	95.9	96.0	no target	0.2%	Progress made
	Waste to landfill (kg per tonne of steel)	58	43	47	24	4	12	13	5	16.4%	Off track
	Waste to incineration (Kg per tonne of steel)	0.46	0.04	0.02	0.01	0.01	0.03	0.02	0	-26.7%	Progress made
Social	Health and Safety - Lost time Injury Frequency Rate (Lost time injuries per million hours worked)							24	10	new target	Off track
	Skills and Training - Development of Employees (Number of training hours per employee and contractor)	27	22	23	24	27	28	25	30	-10.4%	Off track
	Community Relations, increase or decrease in initiatives							13 Increase 9 decrease	Increase	new target	Progress made
Sustainability Management	Total number of environmental and social complaints resulted in a successful prosecution by an external Regulator in the data collection/reporting period ³	0	1	5	0	3	0	369	Maintain 0		Off track
	Suppliers evaluated against responsible sourcing policy and the social and environmental issues listed in CARES SCS Operational Assessment Schedule (%)	n/a	13	20	13	18	6	27	75%	396%	Progress made
	Reporting Sustainability Performance to Stakeholders - Publication of CSR/Sustainability Report on yearly basis (%)	n/a	19	27	24	35	53	55	100%	3%	Progress made
Economic	Local Purchasing - Increase or Decrease							17 increase 5 decrease	Increase	new target	Increasing
	Local Employment - Increase or Decrease							6 increase 2 decrease 14 all local	Increase	new target	Increasing

An 'Approved' product or 'approved' suppliers refer to product and suppliers approved under the CARES SCS Scheme.

1 The Global Warming Potential (GWP) data point includes GWP from raw material supply, transport, and the manufacturing of steel products, i.e. Raw materials and Production: A1-3 as per EN 15804. It excludes impacts from the use of product, end-of-life stages and recovery stages (Construction: A4-5, Use stage: B1-7, End-of-life: C1-4 and Benefits and loads beyond the system boundary: D). The full data sets, commonly referred to as 'Cradle to Gate + options', are available in the published EPD.

2 This figure represents the mean average GWP from the most recent CARES third-party verified EPD reports to EN 15804 available for each approved scrap-based producer. Please note that the 2021 figure was not fully verified at the time of writing.

3 This includes a financial penalty, an enforcement notice, a prohibition notice, and/or a prosecution. The anomalous 369 figure is explained on the following page.

4 Targets relate to scrap based EAF production route only unless stated. There are plans to enhance the targets and presentation of data to cover different production routes in future years. Target baseline year is now 2020.



SCS Scheme Performance in perspective

Transparency of verified performance data is a foundation principle of the CARES SCS scheme. Public disclosure of information informs decision making and drives performance improvement.

The performance table above, includes collated information covering the most material impacts. This year we have started to expand the scope of information published to include all steel production routes, where it still enables comparability (footnotes detail where this is not the case and the reason for this). This process will continue in future years reporting. For detailed information about individual approved firms' performance, please review their own sustainability reporting and disclosures, which is a mandatory requirement under version 9 of the scheme.

At the end of the 2021 audit cycle, 12 firms have transitioned to the new version 9 of the scheme and 31 firms remain on version 8 and will complete the transition when their recertification becomes due, before the end of 2024 at the latest.

The steel industry is approaching the technical maximums for key process efficiency as is evident from the material efficiency metric, where performance has remained steady since 2015. The Global Warming Potential (GWP) performance data for 2021 includes data which is still going through third party validation, due to changes to the underlying LCA tool which are not expected to impact on the GWP data presented. Although there has been an increase in the use of

renewable electricity and decarbonisation investments the overall trend shows an increase. This was mainly due to market and commercial decisions in 2021, where plants decided to buy in a proportion of billets for rolling. These inputs included some primary produced billets which had a higher GWP and hence increased the average. With global legal and voluntary commitments to Net-Zero increasing all the time, this is a key metric for the scheme, and which will be subject to stakeholder engagement in support of improved target setting during 2023.

Water use intensity increased slightly, and we are now publishing DRI/EAF water use data which will be higher as there is additional water used in the DRI process stage. Water use is best considered in the light of other catchment user needs and criteria related to improvement plans in the scheme include this expectation.

Stimulating circular economies is central to the SCS scheme. As steel is indefinitely recyclable and the most recycled material in the world, scrap-based production will continue to grow as steel in end-of-life assets enters recycling streams. However, market conditions and commercial decisions mean that other factors are impacting on the recycling rates. For example, some scrap based EAF producers have been using some DRI in the process. The data includes pre- and post-consumer scrap. Waste to landfill and incineration have reduced significantly since 2015 with a minor increase in waste to landfill last year.

The publication of Lost Time Injury Frequency Rates (LTIFR) at a site level has been made mandatory under version 9 of the scheme and the average is now collated. Unfortunately, there were 3 fatalities at approved firms in 2021, which are both personal tragedies and avoidable. The SCS scheme is designed to promote zero harm, which is also our 2050 target.

The target to maintain full compliance, was met in three of the six years to 2021. However, in 2021, 1 firm had 365 incidents within this metric, an unusually high prosecution rate, mainly for environmental incidents. Both the local government and the approved firm are taking the matter extremely seriously and Action Plans agreed with enforcement authorities, are in place to improve this situation.

The scheme seeks to leverage the approved firms influence over their supply chain and requires the evaluation of the range of impacts covered by the scheme. We are seeing progress being made in this area and improvements in the quality of supply chain due diligence. Demands for transparent, public reporting of material sustainability information is growing, including from the financial community. CARES has now made sustainability reporting of material metrics and information a mandatory requirement of version 9 of the scheme and we are seeing increasing disclosure.

CARES own impacts

Our most material impacts are through the adoption and implementation of our SCS and EPD schemes at approved firms, together with our impacts on our employees. CARES own operational impacts are relatively small. For example, our total annual greenhouse gas emissions, which is our most significant impact, are less than 0.5% of those from a single small steel mill. Nevertheless, we take our responsibilities to reduce them seriously. 86% of our greenhouse gas emissions come from flights (based on a typical auditing year of 2019, rather than 2021 when travel remained reduced due to Covid restrictions). Our next most significant emissions impact is from hotel stays followed by surface transport, with the majority of all these emissions coming from auditors travelling to sites.

This year, our team expanded to 36 employees operating from three continents. Our auditors visit complex industrial facilities and construction sites with inherent safety risks. Their health, safety and wellbeing is of paramount importance to us. We are proud that we have a high retention rate and operate flexibly and continue to support them to meet the day-to-day challenges of life and work.

Our safety committee, led by our General Manager, oversees our safety management system and culture. Detailed risk assessments are completed for all operational activities and regular training is provided to all staff. Performance is monitored and regularly reviewed. There have been no significant incidents in this and

recent reporting periods. Our five trained Mental Health First Aiders continue to support employees across all our operations with mental health awareness training available to all others. A Staff Wellbeing Intranet Site is now joined by an employee portal, where team members can securely access all remuneration and personal records. To further support the team, the Board approved a one off cost of living payment this October.

Sustainability Strategy and transition plan

We support the UN's Sustainable Development Goals and its Race to Zero and have committed to reducing our direct emissions by 50% by 2030, to Net-Zero by 2050 and to disclosing our progress on an annual basis. Our transition strategy is based on developing our digital assurance practices and enhancing risk-based auditing to determine on-site audit needs. This blended approach can reduce auditor travel and costs to approved firms. We are building our localised audit capacity to further reduce travel and are encouraging alternate travel modes when appropriate. Virtual meeting technologies are being widely utilised, which

also enhances access to our stakeholder events, meetings and the events and conferences we attend. We are installing PV arrays and battery storage at our offices in Sevenoaks, source 100% renewable electricity and are evaluating other options to reduce and eliminate residual emissions.

The greater impact is from the widespread adoption, implementation and specification of our SCS schemes. The SCS scheme criteria are aligned to multiple SDG's and their targets. New criteria in version 9 introduce three mandatory thresholds: the evaluation of suppliers

for responsible sourcing practices and the use of SCS approved feedstock for processors and fabricators; maximum greenhouse gas emissions by process type; and transparency of safety performance. The thresholds will be reviewed and tightened over time. Paris aligned strategies, targets and reporting are requested. The ability to contribute to construction project based social valuations, gender and payment practices transparency are among other voluntary credit criteria that can contribute to higher Rosette Ratings. The SCS scheme targets have been extended out to 2025, 2030 and 2050.

We support the UN's Sustainable Development Goals and its Race to Zero and have committed to reducing our direct emissions by 50% by 2030, to Net-Zero by 2050 and to disclosing our progress on an annual basis.



SCS Scheme Targets

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Aspect	Key Metrics	Target 2025	Target 2030	Target 2050
Quality	Quality data: % of product quality data available digitally via the CARES Cloud	100	Maintain	Maintain
Sustainability Management	Traceability: % of product fully traceable from construction site to steel mill with traceability information available through the CARES digital record.	100	Maintain	Maintain
	Responsible sourcing: For Producers: % of key raw material suppliers evaluated for sustainability impact (Processors shall buy from SCS approved steel producers or from producers with sustainability certifications acceptable to CARES for product to be claimed as SCS certified)	90	95	100
	Responsible sourcing: % of key raw materials, by mass, fully traceable to their source or with human rights due diligence completed	90	100	Maintain
	Reporting Sustainability Performance to Stakeholders: Publication of CSR/Sustainability Report or equivalent on yearly basis (%)	100	Maintain	Maintain
	Total number of environmental and social complaints resulted in a successful prosecution by an external regulator in the data collection/reporting period ²	0	Maintain	Maintain
Environment	Material Efficiency - % for producer (tonnes billet, bloom or slab produced as % of total raw materials)	83	84	84
	Global Warming Potential - maximum threshold (Kg CO2e per tonne of carbon steel bar produced) ³	750	500	Zero
	Water Use - m ³ per tonne of steel	0.90	0.85	0.85
	Waste to landfill - kg per tonne of steel	5	3	0
	Waste to incineration - kg per tonne of steel	0	Maintain	Maintain
Social	Health and Safety, Lost Time Injury Frequency Rate (Lost time injuries per million hours worked)	10	8	0
	Skills and Training (Development of Employees) - Number of training hours per employee and contractor per year	30	Maintain	Maintain
	Community Relations - Increase or Decrease in community initiatives ⁴	Increase	Increase	Increase
Economic	Local Purchasing - Increase or Decrease in local purchasing ⁵	Increase	Increase	Increase
	Local Employment - Increase or Decrease in local employment ⁶	Increase	Increase	Increase

Metrics and targets relate to EAF - scrap-based producers of steel to BS4449, which is a high percentage of approved steelmills (82% in 2020). DRI based (14% in 2020), integrated mills (1% in 2020) and processors are not included in these targets. This enables comparability of the data by making it meaningful to the specific production process. Inclusion of all the approved firms would skew the data. CARES is reviewing this approach with stakeholders to ensure it provides the most relevant and transparent presentation of the data.

The baseline for any change in percentage is 2020.

An 'Approved' product or 'approved' suppliers refer to product and suppliers approved under the CARES SCS Scheme.

1. Special additional requirements apply where, due to market conditions, there is insufficient CARES SCS approved feedstock available. In these cases, the intention is that non-approved feedstock producers can demonstrate they meet equivalent requirements for key criteria in the scheme.

2. This includes a financial penalty, an enforcement notice, a prohibition notice, and/or a prosecution.

3. This figure represents the mean average from the most current CARES third party verified EPD reports to EN 15804 available for scrap-based producers approved by the scheme each year. The Global Warming Potential (GWP) data point includes GWP from raw material supply, transport, and the manufacturing of steel products, i.e. Raw materials and Production: A1-3,

which constitutes 80+% of Life-Cycle GWP. It excludes impacts from the use of product, end-of-life stages and recovery stages (Construction: A4-5, Use stage: B1-7, End-of-life: C1-4 and Benefits and loads beyond the system boundary: D).

The full data sets, commonly referred to as 'Cradle to Gate + options', are available in the published EPD.

Please note, the GWP targets to 2025 and 2030 are subject to a review process and may reduce.

4. On average, have the approved firms increased or decreased their community investment rate or employee volunteering initiatives.

5. On average, have the approved firms increased or decreased their local purchasing (% spend in local currency)

6. On average, have the approved firms increased or decreased local employment (% of total employment). Local is taken to mean 'national' unless other definitions of local apply in law at the approved firm.

Case study:

Liberty Speciality Steels business relies on CARES certification

LIBERTY Steel UK is a fully integrated manufacturer and distributor of steel products. The third largest steel manufacturer in the UK, with a footprint that covers nine sites across England, Scotland and Wales. It employs nearly 3,000 people and has an annual steel rolling capacity approaching three million tonnes.

Liberty Steel UK is playing an active role in meeting the group's global CN30 ambition to be carbon neutral by 2030. In addition to its development of the

GREENSTEEL Strategy, its Speciality Steels business in Rotherham uses an electric arc furnace – a less carbon-intensive form of producing steel than blast furnace production – to melt scrap steel for rolling into downstream products including for construction.

Liberty Speciality Steels offer high quality micro alloyed, hot rolled, GREENSTEEL rebar in grade B500C for use in reinforced concrete structures, including major road, rail and construction projects under the GreBar™ brand.

The manufacture of reinforcement bars at its Rotherham business is certified to CARES SCS and BES 6001.

Ed Heath-Whyte, Head of Environment and Sustainability at Liberty Steel UK comments 'As the only micro alloyed reinforcement bar producer in the UK, certification to CARES SCS and BES 6001 provides confidence to our customers that responsible sourcing and improving sustainability performance are an intrinsic part of our offer.'

Better for customers

Product Quality certification

Full traceability from steel mill to construction site

Sustainable Constructional Steel certification

Attract credits in Building and Infrastructure Rating Systems

Specify CARES certified – not just any rebar

The CARES mark identifies a specific mill in a specific country



Trust the CARES mark

Country = 7 ribs

Mill = 7 ribs



Tell us what you think

This is our 11th report where we seek to capture how the CARES Sustainable Constructional Steel supply chain impacts on the environment, society and the economy. We welcome your feedback.



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