
CARES
The CARES Sustainability Report
Your Assured Steel Products Supply Chain
2023/2024
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Introduction

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

CARES Milestones

CARES governance structure

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. It demonstrates how a CARES approved supply chain for constructional steel can help reduce business risk and provide confidence to downstream constructional steel users. 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 2023, the latest year of audited data. Data for previous years is available in earlier reports on our website. The narrative explains changes to the scheme or its operating environment to autumn 2024.

We welcome feedback on this report and on how the constructional steel sector can contribute to accelerating change at scale for a sustainable future.

What is CARES?

CARES is an independent, not-for-profit certification body. With no dividend payments, any surplus is reinvested into the business to support the fulfilment of its mission. Having celebrated its 40th anniversary in October 2023 it continues to operate for the benefit of the construction industry, offering certification schemes for companies that produce steel 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?

CARES is governed by its Board, which consists of five independent members, including the Chair, and four Executives. It is advised on policy and strategy by its Policy Advisory Committee (PAC) and informed of stakeholder viewpoints through its Sustainability Technical Committee and a range of regional Stakeholder Forums and consultations.

The members of the PAC are from the following organisations and professional institutions:

- Association of Consultancy and Engineering (ACE)
  National Highways
- Civil Engineering Contractors Association (CECA)
  CONSTRUCT
- Institution of Structural Engineers (IStructE)
- International Steel Trade Association (ISTA)
- Office for Nuclear Regulation (ONR/HSE)
- Rail Safety and Standards Board (RSSB)
- MPA Concrete Centre
- BIRFA
- International Contractor
- UK Steel
- Post Tensioning Association (PTA)

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

Key Milestones for CARES

1983
UK government and the construction industry supports the foundation of UK Certification Authority for Reinforcing Steels Ltd. (UK CARES) as a Private company limited by guarantee without share capital (not for profit). Its purpose is to ensure quality of constructional steels coming onto UK market/help keep buildings and infrastructure safe.

Developed reinforcing bar product conformity certification schemes based on British Standards to meet growing market demand.

1985
Introduced Management System certifications to its service range.

1986
Becomes second accredited certification body under the National Accreditation Council for Certification Bodies now called the United Kingdom Accreditation Service (UKAS), and the first for product certification.

UKAS PRODUCT CERTIFICATION 002

1988
First international certificate of approval issued

Developed broader stakeholder led governance systems including introduction of PAC and stakeholder committees.

SUSTAINABILITY

2011
Additional Operational Assessment Schedules 'sustainable production of welded fabric to BS 4483' and 'Sustainable production of stainless steel bars for the reinforcement of concrete' added.

2010
The scheme principles and structure adapted to align with BS 8902:2009 'Responsible sourcing sector certification schemes – Specification' standard. Carbon footprint reporting introduced.

2009
The World's first sustainability certification scheme for steel products – Sustainable Reinforcement Steels (SRS) Scheme introduced. Mandatory to hold CARES product certification, ISO 9001 and ISO 14001 to join scheme. Initially only 2 Operational Assessment Schedules were available: 'sustainable production of carbon steel bars' and 'sustainable processing of steel products'.

2011
Additional Operational Assessment Schedules 'sustainable production of welded fabric to BS 4483' and 'Sustainable production of stainless steel bars for the reinforcement of concrete' added.

2012
2 additional Operational Assessment Schedules 'sustainable production of welded fabric to BS 4483' and 'Sustainable production of stainless steel bars for the reinforcement of concrete' added.

Name of the scheme revised from SRS to SCS. An additional Operational Assessment Schedule 'sustainable production of structural steel products' added. CARES achieved UKAS accreditation for SCS certification to BS 8902:2009.

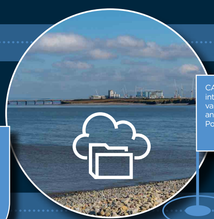
2014
CARES SCS scheme recognised as 'BREEAM Recognised Responsible Sourcing Certification Scheme' enabling clients to achieve responsible sourcing credits under BREEAM New Construction 2014.

2015
An additional Operational Assessment Schedule 'sustainable production of hot rolled flat steel products' added to the SCS scheme.

2013
All Operational Assessment Schedules revised with new and enhanced social criteria.

Environmental Product Declaration (EPD) introduced.

CARES publishes its first 'Sustainability Scheme Annual Sector Report'.



CARES Cloud first introduced for enhanced value chain traceability and quality for Hinkley Point C nuclear project.

2017
CARES sustainability workbook revised to clarify disclosures/requirements and KPIs.

2016
All Operational Assessment Schedules revised to comply with new standard developments and building rating systems. CARES Rosette Rating System introduced enabling recognition of management and performance beyond mandatory scheme requirements.

2018
SCS version 8 launched with revised sustainability workbook to reflect ISO standards updates, to clarify disclosures, requirements and KPIs, and to better align to BRE BREEAM evaluation criteria. A range of credit criterion updated to become mandatory clauses (e.g. Land remediation)

Achieves Singapore Accreditation Council (SAC) accreditation

2019
CARES celebrates 10 years of Sustainable Constructional Steels scheme

2020
CARES Cloud develops into fully integrated value chain ecosystem with introduction of upstream and downstream app's and online dashboard enabling speed and transparent information exchange in ever more complex international supply chains where safety, sustainability and product quality data are all mission critical.

UK CARES rebranded to CARES to better reflect its international reach, now operating across 46 countries and with offices in Hong Kong, Australia (Partner office), and Singapore.

2022
Approved as a certification body by ResponsibleSteel

Mandatory emissions thresholds introduced into SCS - the first steel scheme in the world to do this. Credit emissions thresholds introduced to incentivise higher levels of performance.

SCS revised to the current Version 9. KPI's and criteria enhanced and added including for: Voluntary and community group, social enterprises and SME purchases, renewable energy, responsible sourcing evaluation scope, gender and gender pay equality, apprentice employees, graduate trainees, social valuation; rating system improved; Balanced score card reporting introduced.

New brand look and feel introduced as CARES accelerates its digitisation programme.

Achieves Hong Kong Accreditation Service (HKAS) accreditation

2021
EPD programme expanded to enable SRC approved firms + other steel makers to obtain a standalone EPD following CARES strict EPD requirements.

Updated requirements to reflect the changes in the new BES 6001 v4

October 2023 – CARES Celebrates its 40th anniversary

40 YEARS 1983-2023

2024
CARES signs Steel Standards Principles. Public consultation on changes to SCS v9 and development of v10. Includes: proposals to support alignment for GHG emissions measurement and reporting; proposals to enhance range of criteria to provide more granularity for labour and human rights, responsible sourcing including of scrap.

Achieves Saudi Standards, Metrology, and Quality Organization (SASO) conformity assessment body status.

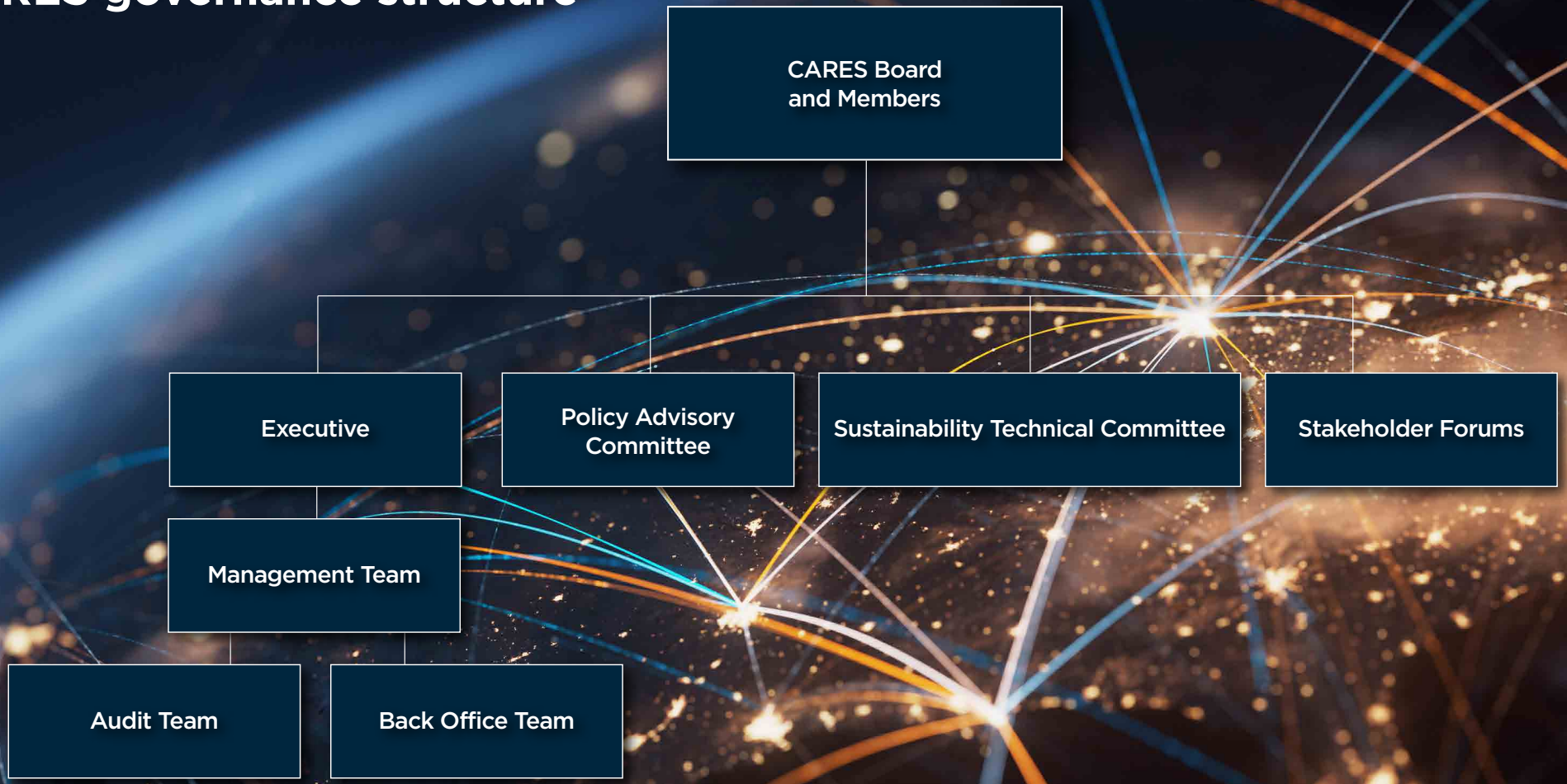
Achieves Emirates International Accreditation Centre (EIAC) accreditation

Achieves Ministry of Industry and Advanced Technology (MoIAT) notified body status.

Joint Accreditation System of Australia and New Zealand (JASANZ) accreditation is on track to be achieved in early 2025.

2025

CARES governance structure



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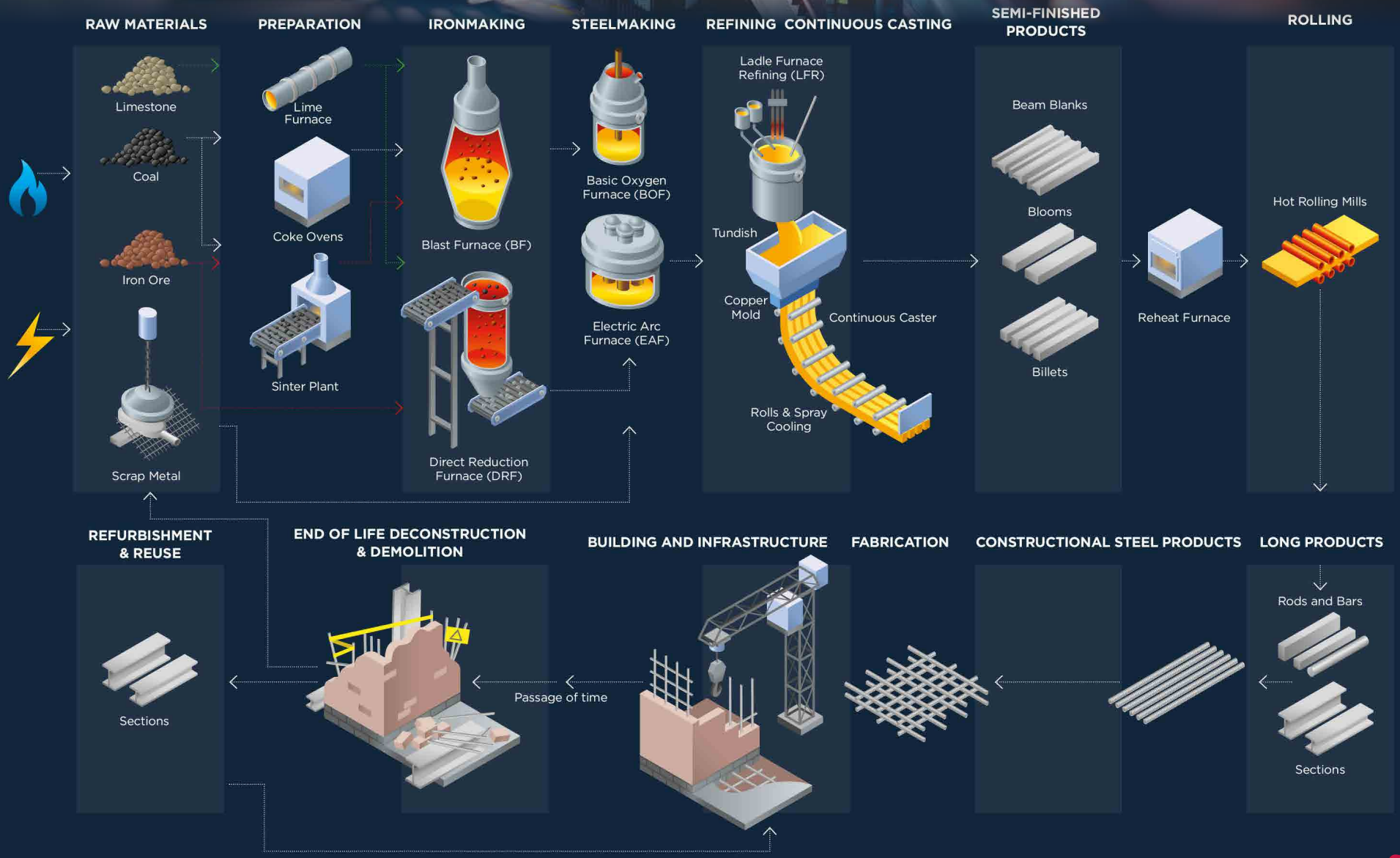
CARES certifications scope

The scope of CARES certifications include all the process stages shown until the constructional steel products final use in a building or infrastructure, i.e. excludes deconstruction, demolition, refurbishment and reuse.



CEO's Statement

Building confidence in constructional steels

As we proudly celebrated our 40th anniversary last year, I am inspired by the many opportunities that continue to emerge for the construction and steel industries. Our unwavering commitment to providing confidence in constructional steel remains the driving force behind our actions.

At CARES, our mission is clear: to establish the most secure, effective, efficient, digital, and sustainable reinforcing steel supply chain in the world. We are relentless in our pursuit of quality assurance, responsible sourcing, and the integration of CARES Digital Assurance Records, ensuring that our stakeholders can trust every product that enters the market.

Our global presence has expanded significantly, as we are now operating in 46 countries. We have successfully broadened our accreditations, including our recent recognition by the Singapore Accreditation Council (SAC) for a variety of construction activities, reinforcing our position as a leader in the field.

In partnership with the UAE Government and steel industry, we are proud to have contributed to the creation of the groundbreaking Cabinet Decision No. 121/2023. This initiative is a landmark step in assuring the quality of reinforcing steels and tackling the pressing challenge of decarbonisation in our sector. By unifying requirements for product quality, environmental performance, and digital traceability, we are paving the way for a secure and sustainable construction supply chain. Notably, this Regulation is the first to require manufacturers to provide a Digital Product Passport.

We are also honoured to be the first conformity assessment body recognised by the Ministry of Innovation and Advanced Technology (MoIAT) in the UAE, enabling us to fulfil the certification tasks mandated by this Regulation. Our work with the Saudi Accreditation Centre further underscores our commitment to supporting the high-profile 'giga-projects' in the region.

In Australasia, our accreditation process with JASANZ is advancing, and in the UK, the findings from the Grenfell Tower Inquiry have reinforced the critical need for effective product certifications and tracking systems. Our established digital ecosystem, the CARES Cloud, continues to evolve, providing essential data for the Golden Thread of Information required by the Building Safety Act 2022.

Our CARES Sustainable Constructional Steel (SCS) scheme is thriving, enabling stakeholders in the reinforcing steel supply chain to declare their sustainability performance and earn credits in green building rating systems. As we develop version 10 of this scheme, we are also expanding our verified Environmental Product Declarations (EPD) program, empowering more steel mills to meet the increasing demand for transparency in decarbonisation strategies.

Our commitment to sustainable practices extends to our collaboration with global initiatives, such as signing the Steel Standards Principles promoted by the World Trade Organisation, and actively participating in various working groups focused on low-emission steel and public procurement strategies.

I invite you to explore this Report, which highlights our extensive activities and initiatives. Your feedback and engagement are invaluable as we continue to advance responsible sourcing and sustainability practices, addressing the critical challenges of our time.

Thank you for your continued support as we navigate this dynamic landscape together.

Lee Brankley
Chief Executive Officer

Sustainable Constructional Steel Scheme

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' infographic, shown on the next page, 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. 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, is a requirement of and underpins the scheme operation.

The scheme has a high entry level requirement. Third party certification to ISO 9001 for quality management, ISO 14001 for environmental management, and ISO 45001 for Health and Safety management, are prerequisites for approval. It has 72 mandatory criteria, 48 voluntary criteria (120 in total) and 34 mandatory Key Performance Indicators. Public reporting of material impacts and performance is also mandatory. Our highly skilled auditors, all with extensive steel industry experience, triangulate observational, documentary, and testimonial evidence 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 through the Rosette Ratings supports a transition towards science and context-based performance.

The 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 version 9 of the scheme, which is now fully adopted by approved firms.

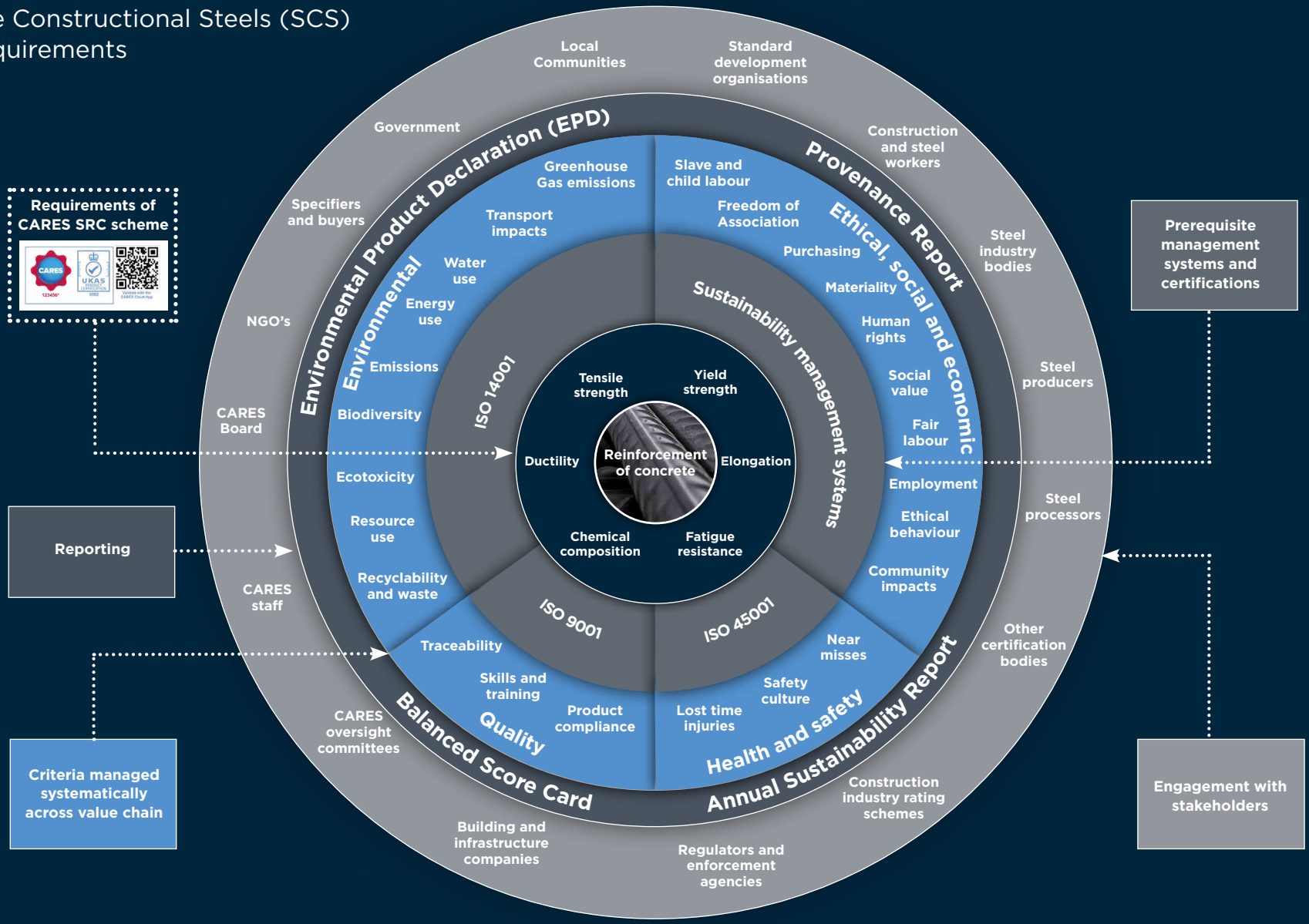
Enhanced criteria in version 9 relate to science-based targets and transition pathways, alignment to the reporting requirements to the Taskforce for Climate Related Financial Disclosures (TFCD) and support the calculation of social value at project levels. We have digitised the Global Warming Potential (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 19. 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 steel mill source to site.

Extended Product Concept

Extended Product Concept

Sustainable Constructional Steels (SCS) scheme requirements



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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 and is based on the internationally recognised LCA standards ISO 14040 and ISO 14044.

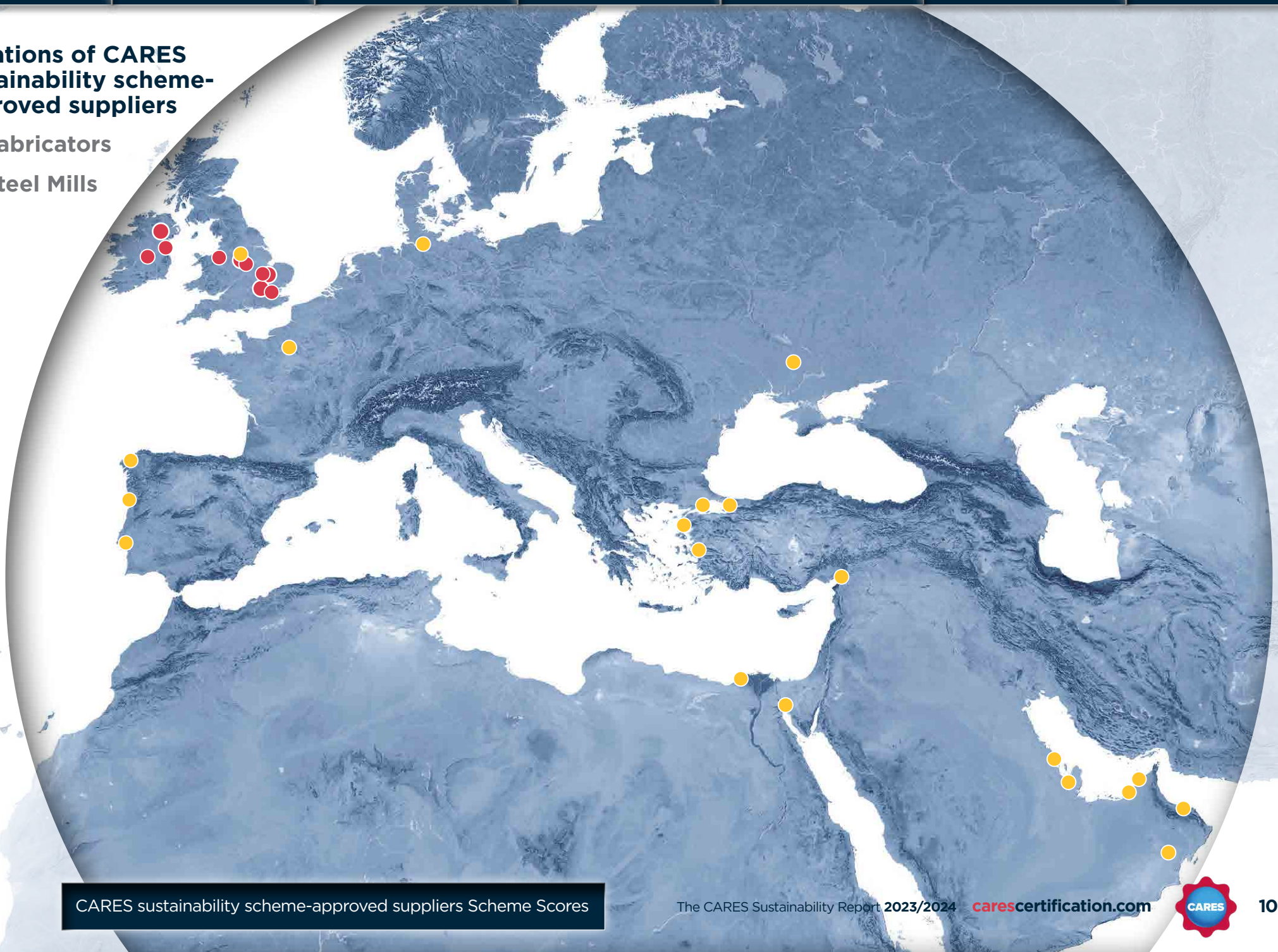
The data, checked by CARES and verified by BRE, is produced in accordance with EN 15084+A2:2019 (Sustainability of construction works - Environmental product declarations). CARES EPD's are site, product and production route specific. They are produced for each SCS approved producer and are now also available for CARES Steel for the Reinforcement of Concrete (SRC) scheme approved and other firms. A sector average EPD is produced for SCS approved firms making carbon steel reinforcing bar from scrap steel using the Electric Arc Furnace production route and is a recognised global benchmark. Additional EPD's cover 'structural steels' and 'prestressing wire & strand' products. 49 product and manufacturer specific EPDs and 1 CARES Sector Average EPD are publicly available at the time of writing via Greenbook live and from our website with more in progress. Fabricators produce simpler carbon footprints which detail their global warming impacts. Additional emissions estimates from transport are available from CARES to ensure completeness and accuracy of project level embodied emissions.

The Global Warming Potential Data from the EPD is available through the CARES Cloud and digital ecosystem. Accessible to producers, fabricators, contractors and clients, this innovation enables accurate 'embodied carbon' 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

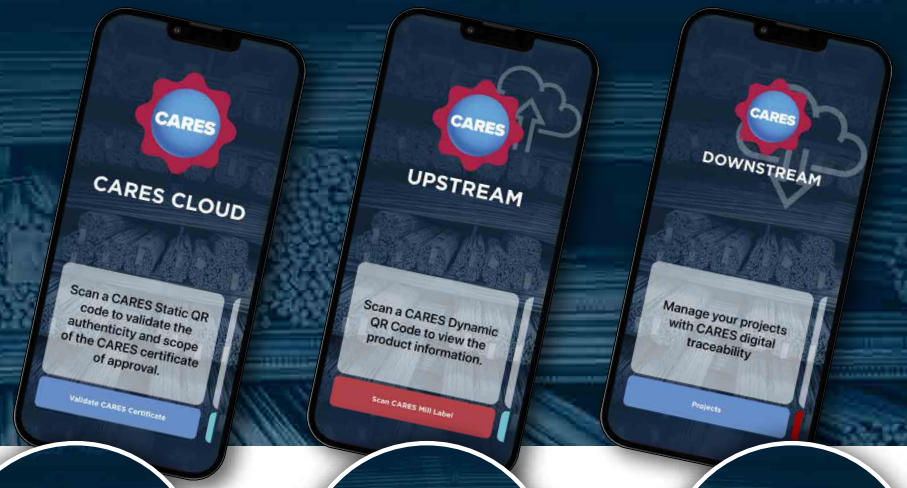
No	Auditee	SCS Certificate No	CARES SCS Score	BES6001 Certificate No	BES 6001 Score
1	Midland Steel Reinforcement Supplies [London Thamesport, UK]	1287	2 Rosettes	1476	Very Good
2	Midland Steel Reinforcement Supplies [Mountmellick, Ireland]	1340	2 Rosettes	1475	Very Good
3	Thames Reinforcements Ltd [Sheerness, UK]	1293	1 Rosette	1474	Very Good (v4.0)
4	Thames Reinforcements Ltd. [Nottingham, UK]	1749	1 Rosette	1750	Very Good (v4.0)
5	Brazil & Co. (Steel) Ltd. T\A Fairyhouse Steel [Ratoath, Ireland]	1339	2 Rosettes	1491	Good (v4.0)
6	F Brazil Reinforcements Limited [Canvey Island, UK]	1352	1 Rosette	1510	Good
7	ArcelorMittal Kent Wire Limited T\A AMCS [Chatham, UK]	1402	1 Rosette	1464	Good
8	ArcelorMittal Kent Wire Limited [Chatham, UK]	1554	1 Rosette	1463	Good
9	Capital Reinforcing Ltd [Bromborough, UK]	1430	1 Rosette	1469	Very Good (v4.0)
10	Roe Bros & Co Ltd [Peterborough, UK]	1441	Pass	1644	Pass (v4.0)
11	Hy-Ten Reinforcement Co Ltd [Chatham, UK]	1445	1 Rosette	1477	Very Good
12	Hy-Ten Reinforcement Co Ltd [Newark, UK]	1806	1 Rosette	1807	Pass
13	Hy-Ten Reinforcement Co Ltd [Bootle, UK]	1909	Pass	1910	Good (v4.0)
14	Lemon Groundwork solutions Ltd [Creeksea, Essex, UK]	1743	1 Rosette	1744	Pass
15	Coen Steel Ltd [Galway]	1889	1 Rosette	1890	Good (v4.0)
16	Total Construction Supplies Ltd - Site A [Wolverhampton, UK]			1754	Good (v4.0)
17	Leinster Reinforcement [Kildare] (Recommendation in progress)	1916	Pass	1917	Good (v4.0)
18	L M Products Limited [Warley]	1920	3 Rosettes	1921	Very Good (v4.0)

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
STEEL MILLS (EAF / Scrap Route)	1	Liberty Steel, Rotherham Steel and Bar [Rotherham, UK]			1739	Very Good
	2	Izmir Demir Celik Sanayi AS [Izmir, Turkey]	1234 / 1392	Pass (Rebar)/Pass (Structural)	1453	Pass
	3	Yazici Iron & Steel Co Inc. [Iskenderun, Turkey]	1235	Pass	1452	Good
	4	Ekinciler Iron & Steelworks Inc. [Iskenderun, Turkey]	1239	Pass	1457	Pass
	5	Diler Iron and Steel Co Inc. [Kocaeli, Turkey]	1272	Pass	1460	Pass
	6	HABAS A.S - Rebar [Izmir, Turkey]	1273 / 1434	Pass (Rebar)/Pass (Flat)	1472	Pass
	7	ICDAS Celik Enerji Tersane ve Ulasim Sananyi A.S [Canakkale, Turkey]	1285	1 Rosette	1462	Pass
	8	Megasa Siderúrgica SL [La Coruña, Spain]	1302	1 Rosette	1467	Good
	9	SN Maia - Siderurgia Nacional, S.A [Maia, Portugal]	1328	1 Rosette	1455	Very Good
	10	SN Seixal - Siderurgia Nacional, S.A [Seixal, Portugal]	1329	1 Rosette	1458	Good
	11	ArcelorMittal Hamburg GmbH [Hamburg, Germany]	1319	1 Rosette	1468	Good
	12	Kroman Celik Sanayi A.S [Kocaeli, Turkey]	1324	1 Rosette	1461	Good
	13	ALPA [Gargenville, France]	1344	Pass	1478	Good
	14	Yesilyurt Demir Celik [Samsun, Turkey]	1437	Pass	1465	Very Good
	15	Kaptan Demir Celik Endustrisi Ve Ticaret A.S [Tekirdag, Turkey]	1678	1 Rosette	1679	Good
STEEL MILLS (DRI/ EAF route)	1	Qatar Steel Company (QPSC) [Mesaieed, Qatar]	1282	1 Rosette	1451	Very Good
	2	Emirates Steel Industries [Abu Dhabi, United Arab Emirates]	1268 / 1338	1 Rosette (Rebar) / 1 Rosette (Structural)	1459	Very Good
	3	Jindal Shadeed Iron and Steel LLC [Sohar, Sultanate of Oman]	1581	1 Rosette	1582	Good
	4	Al Ezz Dekheila Steel Company-Alexandria (S.A.E) [Alexandria, Egypt]	1895 / 1896	Pass (Rebar)/Pass (Flat)	1897	Good
	5	Suez Steel Co. RM1/RM2/RM3 [Suez, Egypt]	1922	Pass	1923	Good (v4.0)
ROLLING MILLS	1	Conares Metal Supply Ltd [Dubai, United Arab Emirates]	1377	Pass	1470	Pass
	2	Union Iron & Steel Company L.L.C [Mussafah, United Arab Emirates]	1555	1 Rosette	1556	Good
	3	Hamriyah Steel FZC [Sharjah, United Arab Emirates]	1661	Pass	1662	Good
	4	Qatar Steel Company FZE [Dubai, United Arab Emirates]	1687	Pass	1688	Pass
	5	Al Ittefaq Steel Products Company [Dammam, Kingdom of Saudi Arabia]	1762	1 Rosette	1763	Good
BF/ BOF	1	ArcelorMittal Kryviy Rih PJSC [Kryviy Rih, Ukraine]	1520	1 Rosette	1521	Good
Other	1	FALK Panel Productie L1 & L2 [Netherlands]			1668	Very Good
	2	Delft Profielen B.V [Netherlands]			1740	Good

Traceability and Digital Assurance



All CARES approved steels are 100% traceable at a batch and product level to the original steel producer using an Identity Preserved chain of custody system. ISO 22095 defined Identity Preserved 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 producing steel mill, certifications held and the Global Warming Potential (GWP) data from the EPD. This information can be accessed by contractors using the CARES App.

Case study

Raw materials	Production	To construction site
• Source locations, transport distances and modes for all key materials • Risk assessment and due diligence requirement for higher tiers of supply network	• 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:
LM Products secures world's first SCS certification 3 Rosette Rating

Established in 1983, LM Products Ltd have reliably served the UK construction industry for over 40 years stocking, manufacturing, and distributing construction related products and accessories. LM Products cut, bend and prefabricate steel reinforcement, supply concrete slab accessories and produce bespoke structural steel fabrications.

In 2024 the company was awarded the first ever 3 Rosette Rating for the CARES Sustainable Constructional Steel certification. Designed to recognise and incentivise management and performance that goes beyond the mandatory requirements of the scheme there are 4 Rosette Rating levels, with the highest representing aspirational near zero emissions in its production, zero harm in production, full demonstrable responsible sourcing and a digital record. aspirational near zero emissions in its production, zero harm in production, full demonstrable responsible sourcing and a digital record.

Gaining a 3 Rosette Rating is a significant achievement which, so far, no other fabricator or steel mill has been able to attain. This demonstrates LM Products' commitment to sustainability and their path to long-term sustainable production.

Alex Smith, Technical Director commented: "Achieving 3 Rosettes was a considerable challenge that required a significant investment of time and effort from our team. We've adopted innovative ways of working and implemented systems that align with our strategic goals, showcasing our commitment to excellence."

Simon Worth, Owner and Managing Director of LM Products said: "We are dedicated to enhancing our sustainability efforts, which is a key priority for both us and our customers. Our recent achievement in SCS certification highlights our commitment to transforming the construction industry supply chain. We're particularly proud of our 3 Rosette Rating, which showcases our position at the forefront of these initiatives."

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Case Study:
EMSTEEL's pathway towards decarbonisation

EMSTEEL Group is the UAE's largest manufacturer of steel and building materials, utilising advanced technologies to serve local and over 70 international markets with high-quality products. The company's steel division is CARES-approved, holding a Rosette Rating for both Structural Steel and Reinforcing Bar production.

In 2023, EMSTEEL established its Environmental, Social and Governance (ESG) Governance, including a standalone Board Committee, to elevate and integrate its ESG strategic focus across the organisation. This includes prioritising decarbonisation and circularity to safeguard the environment, as well as its commitment to its people and communities, and its focus on being a trusted & responsible partner of choice. A dedicated ESG and Sustainability function, supported by a cross-functional Sustainability Centre of Excellence, oversees the implementation and progress of the ESG Strategy, reviewed by EMSTEEL's Management and Board Committees.

EMSTEEL is committed to aligning its decarbonisation efforts with global climate standards and frameworks, particularly through the Task Force on Climate-related Financial Disclosures (TCFD) recommendations, as outlined in its 2024 sustainability report. The company identifies transition risks, including regulatory changes and market dynamics, as well as physical risks like extreme weather events.

EMSTEEL's Decarbonisation Strategy targets significant emissions reductions by 2030, aiming for net zero by 2050. Key decarbonisation levers include exploiting carbon capture, transitioning to 100% clean electricity utilisation, increasing circularity via scrap usage and by-product synergies between its business units, and adopting clean hydrogen in production.

The CEO of Emirates Steel, part of EMSTEEL Group, Eng. Saeed Khalfan Al Ghafri stated, "Decarbonisation is critical to the steel industry and society. Our investments and cross-value chain collaborations are paving the way for lower carbon emissions in steel production."

Case Study:
CARES support for the Roundtable on the Responsible Recycling of Metals

During 2023 and 2024 CARES has been a Steering Group member and active participant in The Roundtable on the Responsible Recycling of Metals (the Roundtable). The initiative released its comprehensive findings and recommendations at the OECD Forum on Responsible Mineral Supply Chains in May 2024.

After a 15-month collaborative effort, involving diverse stakeholders, the Roundtable has highlighted gaps in corporate due diligence policies and voluntary sustainability standards regarding recycled content and identified opportunities for improvement. Despite the many benefits of recycling, there remain significant risks, particularly in post-consumer collection and processing, where over 20 million people work, often at subsistence levels, according to the International Labour Organization.

The Roundtable's recommendations offer proactive, far-sighted steps for positive change:

Uppermost is the action brands and manufacturers can take to: leverage their influence by ensuring fair contracts with metal collectors and recyclers; explore innovative service-led business models, and enhance transparency within supply chains and of product take-back schemes.

As due diligence legislation and customer requirements grow and recycled inputs are increasingly included, Steel producers are likely to be asked to demonstrate they have conducted risk assessments of their scrap supply chain and the steps they are taking to ensure responsible practices.

Policymakers can enhance 'producer responsibility' policies to improve links between generator and receptor countries and to direct financial support to areas with high-risk recycling practices.

Voluntary sustainability schemes can strengthen systems for responsible recycled content and broaden assurance mechanisms for diverse recyclate supply chains.

The Roundtable's Summary Report, a 1-page Route map, a Risk Profile, and three background reports, are available from its website **www.rrmroundtable.org** CARES is building the findings into its SCS scheme Version 10 revision process.

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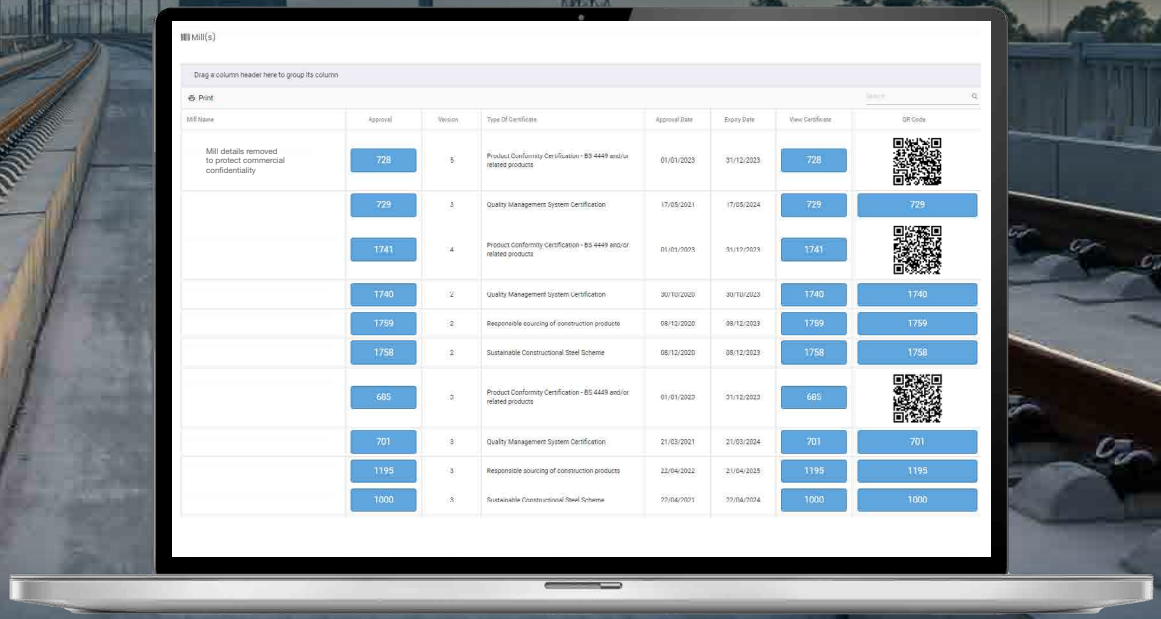
Case study:
HS2 learning legacy from CARES Cloud pilot

The digital chain of custody system (CARES Cloud) was trialled by Mace Dragados joint venture (MDJV) for steel rebar use during High Speed Two (HS2) Phase one works, at the Euston station site in London, UK.

The use of the CARES Cloud provided significant productivity and efficiency gains when compared to traditional paper-based assurance methods. Assuming a quantity of 60,000 tonnes this could provide a saving of about 900 days in processing time. As well as enhancing the transparency of the supply chain, it provided real-time tracking of rebar, its origin, improved product and quality assurance, improved accuracy of embodied carbon emissions and sustainability credentials.

This unlocked the ability of the procurement team to make informed decisions and give preference to lower emission steel sources, as well as enabling them to accurately calculate the actual emissions associated with the reinforcing bar.

The cloud-based platform provides an easy-to-understand digital dashboard to help project managers and contractors identify product conformity and additional certification approvals for rebar delivered to the site. It could become a key part of a materials passport scheme on future projects. The digital architecture is transferable to other steel and wider construction-related products, providing an opportunity for the digital transformation of the built environment sector.



Case study:
iÇDAŞ enhanced biodiversity programme

iÇDAŞ Çelik, one of the largest steel producers in Türkiye, has been producing construction and alloy steel since 1970. The Değirmencik Facility, located in Çanakkale Biga District, has three scrap-based Electric Arc furnace steel plants with a capacity of 4.5 million tons/year and four rolling mills with a capacity of 4 million tons/year, 2.7 million tons of which is construction steel. It also operates 2 ports at the coastal facility.

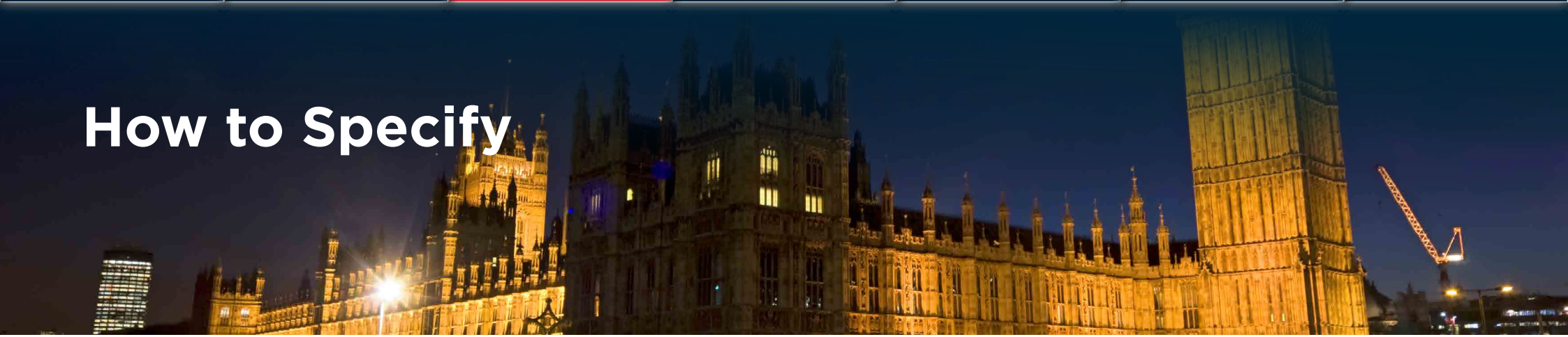
iÇDAŞ has held CARES SCS certification since 2011 and holds 1 Rosette Rating. As well as advances in broader sustainability management, it is involved in innovative biodiversity projects, aligned with Türkiye's goal of protecting biodiversity and stopping extinction by 2030. Since 2013, it's biodiversity research team has regularly examined and recorded the ecosystem and biodiversity across all four seasons in the coastal, forest, scrubland and agricultural areas where it is located.

In cooperation with Çanakkale Onsekiz Mart University, it launched the Artificial Reef and Biodiversity Support Project investing 750 thousand TL (£15,000) in 2 thousand reefs in the region. The objective is to encourage fishing, prevent illegal fishing, and protect marine biodiversity, with research demonstrating fish and other sea creatures are moving towards the reefs and the number of individual species is increasing.

iÇDAŞ Biga Wind Power Plant Ornithological and Wildlife Monitoring Project was set up to understand the potential impact of the renewable power plant on migrating birds and other wildlife and, if necessary, shutting down the turbines during bird migrations. Bat species, populations, breeding habitat, and migration areas were also monitored, resulting in 9 bat species newly identified in the area. A new otter species has also been identified in the area.

Iron Sulphate heptahydrate is generated as waste from the pre-stressed concrete bundle and wire plant. A Research and Development team investigated its use as a fertiliser for soil enrichment. The study demonstrated the viability to use this by-product to meet the iron needs of plants and support local farmers and the agriculture economy. An application has been made to the Ministry of Environment, Urbanization and Climate Change to permit this approach and an estimated 3,364 tons of iron sulphate fertiliser will be produced annually.

< Back | LM Products | EMSTEEL | RRRM | HS2 | iÇDAŞ



How to Specify

Governments are increasingly requiring major projects to specify product conformity and carbon performance. For example, the UK governments procurement guidance note PPN 0621 requires suppliers bidding for major government contracts to commit to achieving Net Zero by 2050 and publish a Carbon Reduction Plan and its PPN 0423 requires the tracking of steel origins.

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

To check all certifications please visit the CARES website.

Summary performance 2015-2023

The following table summarises performance for a range of material metrics for steel producers from 2015 to 2023 and performance against the target (from a 2020 baseline). Fabricators impacts are excluded from this data set as they are less material across the life cycle and to maintain a focus on steel mill performance.

SCS scheme performance in perspective

CARES own impacts

Aspect	Key Metrics	2015	2016	2017	2018	2019	2020	2021	2022	2023	Target 2025	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	83.2	83.7	83	2.7%	On Track
	Global Warming Potential (Scrap based EAF) (kg CO_2e per tonne of carbon steel bar produced)[1, 2]	840	840	898	760	755	741	818	756	737	750	-0.5%	On Track
	Global Warming Potential (DRI based EAF) (kg CO_2e per tonne of carbon steel bar produced)[1, 2]							1989	2001	2126	no target		
	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	1.06	1.00	0.9	-4.9%	On Track
	Water Use m^3 per tonne of steel (All SCS approved)							1.51	1.24	1.21	no target		
	Steel scrap recycled in approved product (% by mass)[3] (Scrap based EAF)	96.9	98.1	97.3	94.7	95.8	95.9	96.0	95.1	95.9	no target		
	Waste to landfill (kg per tonne of steel)	58	43	47	24	4	12	13	9	9	5	-51.9%	On Track
	Waste to incineration (Kg per tonne of steel)	0.46	0.04	0.02	0.01	0.01	0.03	0.02	0.07	0.09	0	+0.06	Off Track
Social	Health and Safety - Lost time Injury Frequency Rate (Lost time injuries per million hours worked)[4]							24	26	23	10	-6%	Off Track
	Skills and Training - Development of Employees (Number of training hours per employee and contractor)	27	22	23	24	27	28	25	28	30	30	16%	On Track
	Community Relations, increase or decrease in initiatives							13 Increase 9 decrease	11 Increase 10 decrease	13 increase 7 decrease	Increase	Net increase	Net increase
Sustainability Management	Total number of environmental and social complaints resulted in a successful prosecution by an external Regulator in the data collection/reporting period[5]	0	1	5	0	3	0	369	2	3	0	2	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	91.74	95.27	75%		On Track
	Reporting Sustainability Performance to Stakeholders - Publication of CSR/Sustainability Report on yearly basis (%)	n/a	19	27	24	35	53	55	86	100	100%	86%	On Track
Economic	Local Purchasing - Increase or Decrease							17 increase 5 decrease	20 increase 1 decrease	15 increase 5 decrease	Increase	New target	Net Increase
	Local Employment - Increase or Decrease							6 increase 2 decrease 14 all local	4 increase 2 decrease 15 all local	4 increase 2 decrease 14 all local	Increase	New target	Net Increase

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:+A2 2019 available for each approved producer.

3 Target relates to scrap based EAF production route only.

4 Target baseline year 2021.

5 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.

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 for the most material impacts. Since 2021, the reported information includes all steel production routes approved by CARES except for the GWP for the Blast Furnace and Basic Oxygen Furnace Integrated route used at ArcelorMittal Kryviy Rih, Ukraine, which is available in its EPD. Data for all routes is incorporated into each metric where comparable or is presented separately where not. When sufficient companies become approved and data becomes available, targets will be set for more recently incorporated process route metrics.

For detailed information about individual approved firms' performance, please review their own, EPD and sustainability reporting, which is a mandatory requirement under version 9 of the scheme.

At the end of October 2024, all approved firms have completed the transition to v9. To breakdown the production route approvals; 15 are scrap based EAF (3 have dual certificates for different products), 1 is from an integrated iron and steel works, 5 are DRI/EAF based steel mills (one has dual certification for different products) and 5 are rolling mills. There are 18 approved fabricators.

Looking at trends in performance, the steel industry is approaching the technical maximums for key process efficiency as is evident from the material efficiency metric. It reached the target of 83% in 2022 and is likely to remain near to this level. Firms have focused on improving the quality of scrap through procurement, pre-processing and dust removal to drive performance. Scrap quality is also a key determinant of Global Warming Potential (GWP) performance as higher quality inputs require less energy to melt and operate at higher efficiencies. Other key factors influencing GWP include national electricity grid factors and purchasing or direct generation of renewable electricity and offer the main opportunities to decarbonise the Scrap/EAF route. The adoption within underlying LCA/EPD tool of EN 15804+A2:2019, provides greater accuracy, for example by including the percentage share of billets sourced from Blast Furnace plants. However, it's use of an average 'Consumption grid mix' for non-EU countries can mask firm specific reductions.

Significant amounts of heat is needed to be removed during steel making using water. Although we have seen reductions this year, difficulties with leak identification, operational changes and higher evaporation from higher ambient temperatures due to climate change, especially in the Middle East and Mediterranean regions, are limiting further improvement. Water use is best considered in the light of other catchment user needs and scheme criteria include this expectation.

Stimulating circular economies is central to the SCS scheme. As most steels are magnetic and can be readily segregated and repeatedly recycled, with only very minor losses, it is the most recycled material in the world. Scrap-based production will continue to grow as steel in end-of-life assets enters recycling streams and as producers seek to produce lower emission steels. However, access to this scrap is not geographically even and market conditions and commercial decisions mean that other factors also influence the recycling rate. Waste to landfill and incineration have reduced significantly since 2015 through improved management practices. Very small volumes of medical waste is incinerated due to regulatory requirements and this will be taken into account when targets are next revised as zero incineration may not be possible.

The publication of Lost Time Injury Frequency Rates at a site level is mandatory under version 9 of the scheme and the average is now collated. There is considerable variation across the approved producers, and to industry averages, suggesting significant potential to reduce injury rates. The main factors that influence this include safety culture, maturity and depth of management system implementation and enforcement. The SCS scheme promotes zero harm, which is also our 2050 target and includes safety as a focus area within stakeholder forums and events.

The target to maintain full compliance, was met in three of the seven years to 2022. In 2021, 1 firm had 365 incidents within this metric, an unusually high prosecution rate, mainly for related environmental incidents. Action Plans agreed with enforcement authorities, have been implemented and in 2023, 3 prosecutions were reported.

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, with increased expectations under v9. This has resulted in significant improvement in the quantity and quality of supplier evaluation and due diligence practices. Public reporting of material sustainability information is now in place across all approved firms.

Local purchasing and employment is defined as within the country and a trend of increasing localisation is noted.

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CARES own impacts

CARES most significant impacts are our Greenhouse gas (GHG) emissions as well as ensuring the health, safety and wellbeing of our employees. Our own operational impacts are relatively small compared to the impacts of our approved firms. For example, our total annual GHG emissions, are less than 0.5% of those from a single small Electric Arc steel mill. Therefore, promoting the adoption and implementation of our SCS and EPD schemes is our main opportunity to influence sustainability performance.

Nevertheless, we take our responsibilities to reduce our negative operational impacts and maximise our positive impacts seriously. 2023 was a more conventional audit year after returning to on-site auditing in the second half of 2022. The Covid-19 travel restrictions in recent years make presenting meaningful trend data for GHG emissions difficult. Our GHG emissions totalled 926 tonnes CO_2e in 2023. The pie chart clearly shows that the key source, 85%, is from flights, with hotel stays and surface transport the next biggest emission sources.

Most of these emissions are a result of auditors travelling to sites. Emissions per audit day have decreased from an average of 0.49 Tonnes CO_2e in 2019 to 0.36 in 2023.

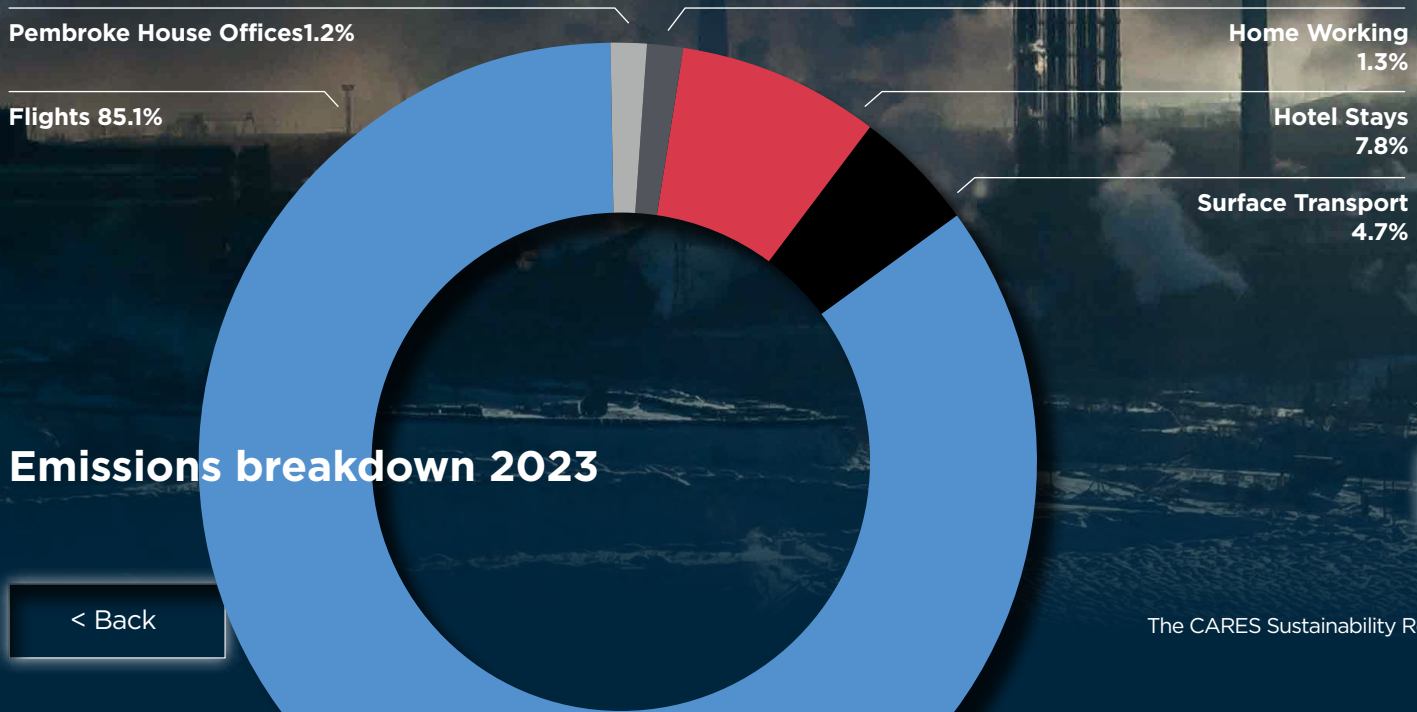
This year, our team expanded to 46 employees and 7 subcontractors operating from three continents. Our auditors visit complex industrial facilities and construction sites with inherent safety risks. Their health, safety and wellbeing is of paramount importance to us. We are proud of our safety record and high employment retention rate. We operate flexibly and continue to support our employees to meet the day-to-day challenges of life and work.

Our safety committee, led by our Chief Operating Officer, 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. Staff have access to a wellbeing Intranet Site and an employee portal, where team members can securely access all remuneration and personal records.

As well as our 'open-door' policy, our periodic employee opinion survey provides our employees with an anonymous opportunity to feedback, which informs our priorities. The results from our most recent survey concluded in 2024 were generally very positive. 100% of staff agree that they have received adequate training to undertake their role and 88% agree that they can grow and develop their career within CARES, however only 41% have a clear understanding of what to do to progress their salary.

Leadership was deemed strong and an average of 91% of staff enjoy collaborating within their immediate teams, feel supported and valued. Staff do feel under pressure at times, with 69% of staff agreeing that they have a good work-life balance, which is an area that CARES will target and look to improve.



Emissions breakdown 2023

Sustainability Strategy and Transition Plan

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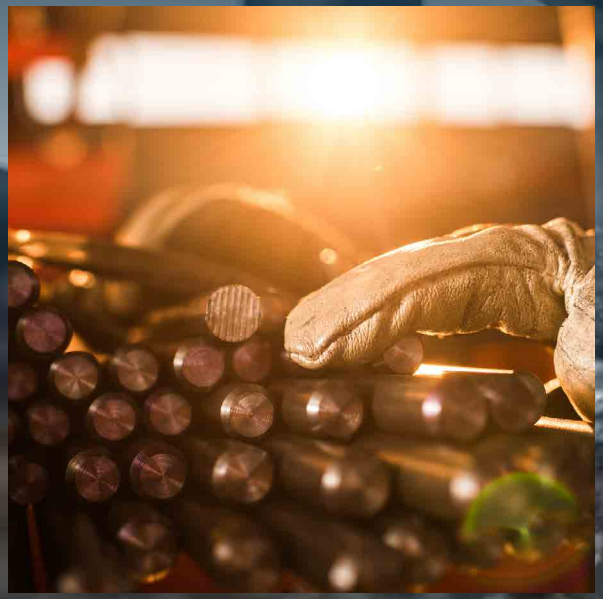
Sustainability Strategy and transition plan

Our decarbonisation strategy is based on developing our digital assurance practices, localising auditors, reducing travel impacts and enhancing risk based auditing (CARESmart) 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. As flying is unavoidable for our work, a risk to our decarbonisation efforts is the slow adoption of sustainable aviation fuels by the aviation industry. Virtual meeting technologies are being widely utilised, which also enhances access to our stakeholder events and meetings and the events we attend. Pembroke House, our offices in Sevenoaks, has PV arrays, battery storage and 2 Electric Vehicle charging points. We, source 100% renewable electricity and are evaluating other options to reduce and eliminate residual emissions.



Work to develop our next version 10 of the SCS scheme continues further to consultation and we welcome ongoing feedback and involvement in this process. Our focus is on reviewing greenhouse gas emissions thresholds and credit scores, responsible sourcing and ensuring schemes have additional relevance to local markets. Our Rosette Rating scoring system is also under review. We are moving toward mandatory reporting of science-based transition pathway strategies and targets are also being reevaluated. Our digitisation strategy is progressing across all our business processes and our CARES Cloud and digital ecosystem is enabling the market to leverage emissions reductions and other environmental and social benefits.

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[1])	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 CO_2e 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. DRI based, integrated mills 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 as part of the v10 development process and may introduce targets for other process routes in future.

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.

SCS Scheme targets are subject to revision and are part of our consultation process for the creation of version 10 of the scheme. We welcome feedback on appropriate target values.

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.

Better for customers

Product Quality certification

Full traceability from steel mill to construction site

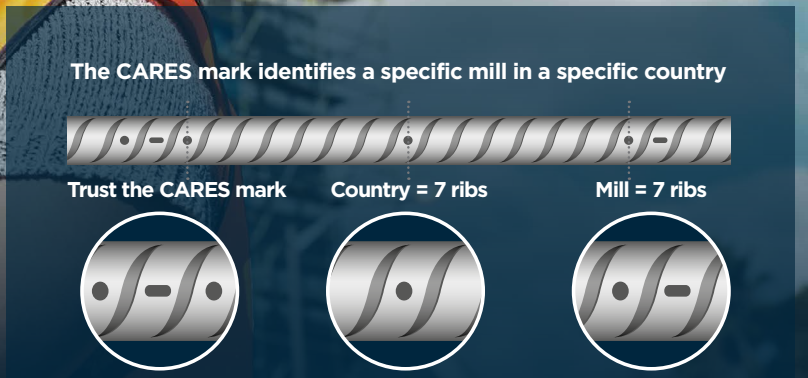
Sustainable Constructional Steel certification

Attract credits in Building and Infrastructure Rating Systems

CARES Cloud and digital ecosystem

Specify CARES certified ...**not just any rebar**

Tell us what you think
This is our 13th 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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SPECIFICATION GUIDE