Progress on aligning on measurement methodologies in the steel sector

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Disclaimer

Steel Standards Principles

Common emissions measurement methodologies to accelerate the transition to near zero

Endorsed by:

Endorsements as of 03/11/25

Endorsers

- Standard-setting / initiatives / methodology development bodies
- Industry associations
- Steel companies
- Suppliers, consumers, investors
- International organisations, initiatives and civil society

Steel Standard Principles

Common emissions measurement methodologies to accelerate the transition to near zero

Steel Standards Principles:

Suggested Actions for Practical Implementation

23/01/2025

Background:

To date, more than 60 organizations have endorsed the Steel Standards Principles. This document sets out a menu of suggested actions that can be taken by different types of endorsing organizations to support the effective implementation of the Steel Standards Principles. *This document will be updated periodically based on actions and examples shared by endorsing organizations.* Five main groups of endorsing organizations are identified below. Endorsing organizations may self-identify with multiple categories and are invited to make use of this guidance as appropriate.

Standard-setting / initiatives / methodology development bodies

- **Adhere to trade principles:** Ensure that standards development or revision processes and procedures are consistent with the WTO Technical Barriers to Trade (TBT) Agreement Code of Good Practice and the TBT Committee's Six Principles for the Development of International Standards, Guides and Recommendations
- **Implement net zero principles:** Ensure that standards are aligned with the IEA "Net Zero Principles" for emissions measurement and data collection, in partnership with other stakeholders. This includes identifying key relevant standards, coordinating across these, identifying priority revisions, and accelerating processes to agree on and implement revisions.

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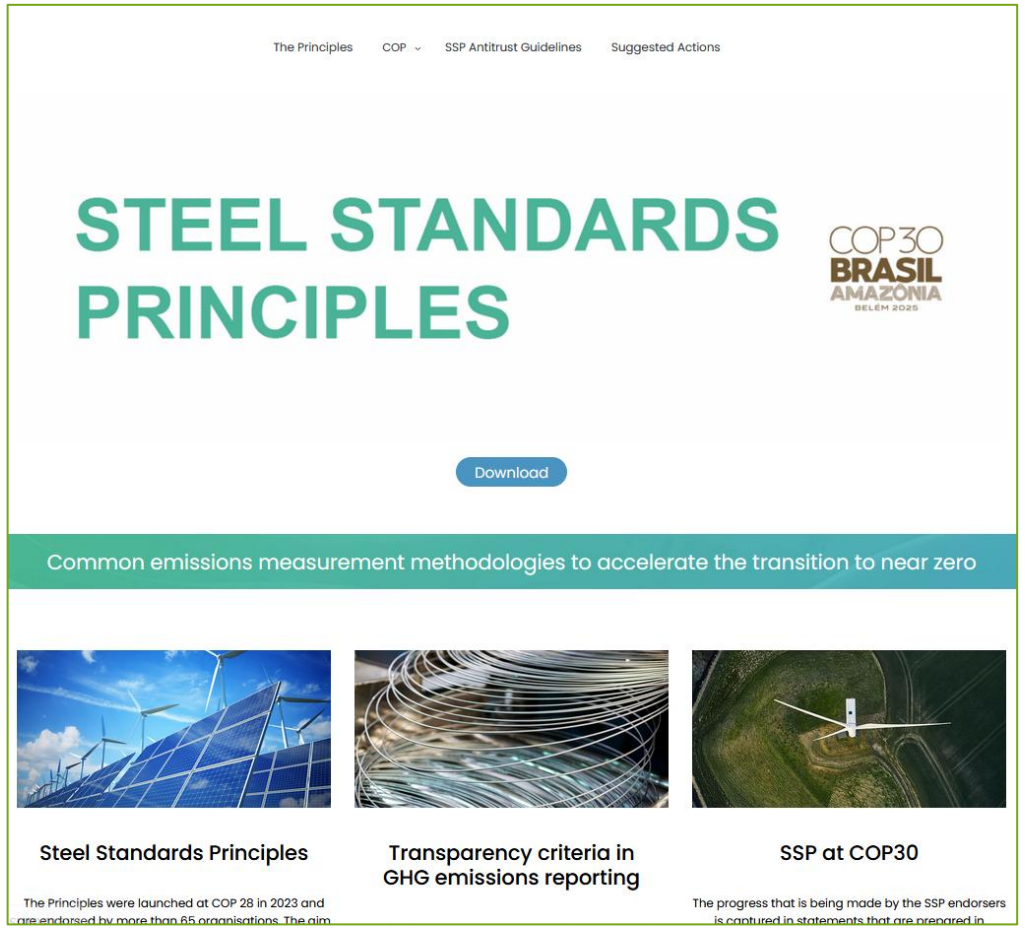
Steel Standards Principles: a response to the proliferation of standards and frameworks for steel

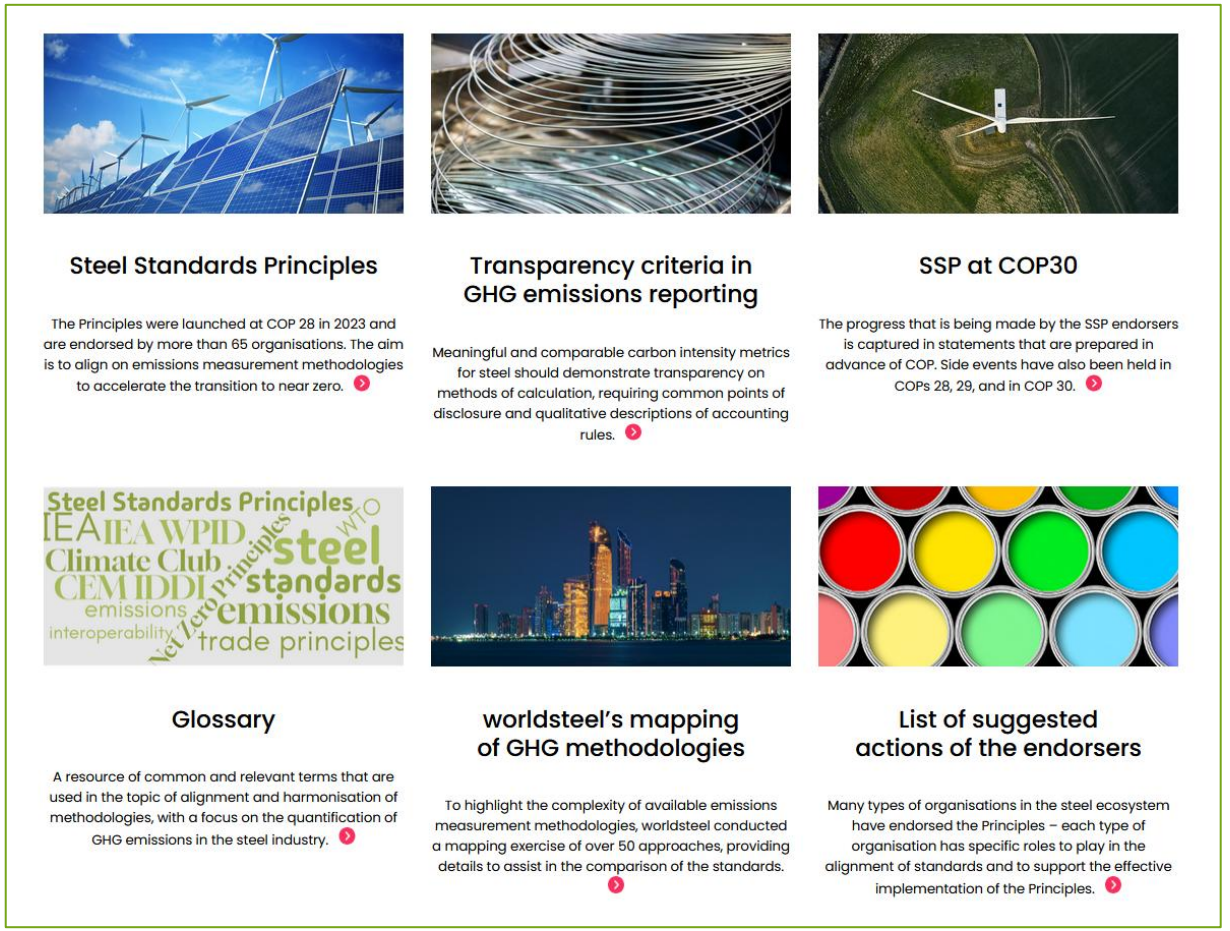
Steel Standards Principles aims at alignment and interoperability of emissions measurement methodologies to accelerate the transition to near zero

Ecodesign for Sustainable Products Regulation

steelstandardsprinciples.org

SSP
STEEL STANDARDS PRINCIPLES





The glossary

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Home > Climate action > Glossary – climate action

Glossary | Climate Action | Steel Standards Principles

There is agreement on the need to establish common methodologies to measure the steel industry's greenhouse gas emissions. This page provides related terminology and definitions.

For more information, please visit the Steel Standards Principle website.

Would you like to suggest another word or a correction? Contact us at ssp@worldsteel.org.

A B C D E F G H I L M N O P R S T W Z

Alignment

Category: Alignment

Verb (to align): Identifying common building blocks of calculation methodology over different schemes, e.g., methodology decisions, defined data points.
Noun: The state of commonality between two approaches/systems.
Source: SSP

Alignment mechanism

Category: Alignment
A project or mechanism that aims to improve alignment between two or more standards, undertaken with agreement by the standard owners, or by an initiative aiming to influence the alignment of standards or data.
Source: SSP interoperability working group

Anthropogenic removals

Category: Reducing/ addressing impact

The withdrawal of greenhouse gases (GHGs) from the atmosphere as a result of deliberate human activities. These include enhancing biological sinks of CO2 and using chemical engineering to achieve long term removal and storage.

Related information

Steel Standards Principles

Link to website

Transparency in greenhouse gas emissions metrics for steel

Common points of disclosure, on a site- or product-level, namely:

- The cradle-to-gate GHG emissions from mining to crude steel as a minimum boundary, per tonne of crude steel
  - in addition to other boundaries that may be specified in a referenced standard
  - with details about the steel production technology route.
- The inclusion of all relevant and significant greenhouse gases in addition to CO_2, at a minimum methane (CH_4) and nitrous oxide (N_2O).
- Data quality
  - includes quantifying the % of primary data contributing to the overall GWP determination.
- Optionally, the amount of ferrous scrap input at the crude steel level
  - based on ISO 14021: 2016+A1:2021, to be defined, specifying the scrap type (internal, home, manufacturing, post-consumer scrap).

Transparency in greenhouse gas emissions metrics for steel

Qualitative explanations of the following accounting rules/decisions relating to:

- Global Warming Potential impact assessment method
- Source(s) of primary and secondary data
- Allocation of emissions related to co-products produced during steel making and used internally or externally to the steel production site
- Use of alternative fuels, such as biobased fuels or hydrogen
- Use and allocation of market or location-based electricity or contractual instruments
- The cradle to gate emissions including transmission losses of imported electricity consumed
- Inclusion/exclusion of transport of raw materials
- Carbon Capture and Utilisation and/or Storage
- Inclusion/exclusion of offsets, credits or insets

Steel Standards Principles

Common emissions measurement methodologies to accelerate the transition to near zero

The following organisations initially committed to incorporating SSP transparency principles into their methodologies

CARES

Responsible Steel standards & certification

worldsteel ASSOCIATION

CISA

LESS LOW EMISSION STEEL STANDARD

GSCC Global Steel Climate Council®

ROCKY MOUNTAIN INSTITUTE

SSP next steps

- **Ensure continuity of technical discussions**, increased uptake of the additional reporting requirements and to continue working for the increased use of primary data.
  - A call for access to generic upstream datasets
- **Further develop the GHG transparency reporting criteria** and explore opportunities for piloting their use with companies and initiatives.
- **Develop and finalise interoperability guidance –** establishing a robust framework to safeguard the credibility of interoperability systems and related claims arising from them.
  - For interoperability between all and any GHG accounting systems
- **Facilitate dialogue among stakeholders**, promoting wider understanding and support for harmonized approaches.
- Defining **data quality** requirements and **recycled content** definitions

And other approaches

Other ‘alignment’ topics

ISO 20915 – steel product LCI	Being updated to bring in some alignment topics.
ISO 14404 series – site-based CO_2 emissions measurement	Being revised into one new standard, will bring in the alignment topics. Will cover GHGs and not just CO_2
ISO and Greenhouse Gas Protocol partnership	Alignment of corporate, product and project level standards. ISO 14067, ISO 14064-1, ISO 14064-2.
Carbon Measures Coalition	Ledger based reporting.
Chain of custody accounting.	Mass balance models. Book and claim systems.

Carbon Measures membership continues to grow

CARBON MEASURES
Actions that Count

Membership correct as at time of document; for most up to date membership list please refer to www.carbonmeasures.org

What is the vision for Carbon Measures

CARBON MEASURES
Actions that Count

Objectives

- **Help governments make more informed policy decisions** that harnesses the power of markets
- **Promote convergence** on a global, ledger-based robust carbon accounting framework
- **Develop technical and economic analyses to design product-level CI standards** recommendations for key products
- **Successfully advocate for the implementation** of product- level CI standards

Principles

- **CO2e emissions reductions:** Focus on total impact to emissions while meeting demand for products
- **Technology neutrality:** Focus on reducing global emissions without any bias for specific pathways or technologies
- **Transparency:** Support implementation of robust carbon accounting which can verify true emissions
- **Market forming:** Promote pragmatic regulatory solutions that drive emissions reductions by leveraging the power of markets to innovate and find the most cost-effective solutions

Steel company ‘low emission’ steel products

Note: these brands use different approaches, some of which are based on chain of custody!

GHG chain of custody approaches in the steel industry

Chain of custody approaches in the steel industry

The role of GHG reduction certificates

The steel industry has a long history of producing life cycle assessments (LCA) and carbon footprints (CFP) of its products.

Up until recently, the reductions in greenhouse gas (GHG) emissions by the industry were passed on to customers by including changes in an updated CFP. In recent years, the demand for low-carbon products has been increasing and steel companies are looking for ways to supply low-carbon steel products to the market.

In this context, the use of chain of custody approaches to assign GHG emission reductions to specific products can be a useful tool and its use has been increasing in the steel industry.

Today there is no standardised methodology for GHG chain of custody approaches and companies have developed their own schemes to meet their own needs. As these schemes multiply, the need for industry guidance has become increasingly clear.

Therefore, worldsteel, together with its members, has developed a set of Principles and Guidelines to provide transparency and clarity on the application of chain of custody approaches within the steel industry, to provide guidance to the companies who choose to use these approaches and also to provide input to other organisations

Chain of custody approaches in the steel sector

Download worldsteel Principles (PDF) *(PDF | 108.93 KB)*

worldsteel guidelines for GHG chain of custody approaches

The general approach

CARBON FOOTPRINT
of the product being sold

BANKING REDUCTIONS
from GHG reduction projects

SELLING CERTIFICATES
alongside the carbon footprint

Carbon footprint also includes: Environmental Product Declaration, Life Cycle Inventory, GHG emissions.

Contact

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