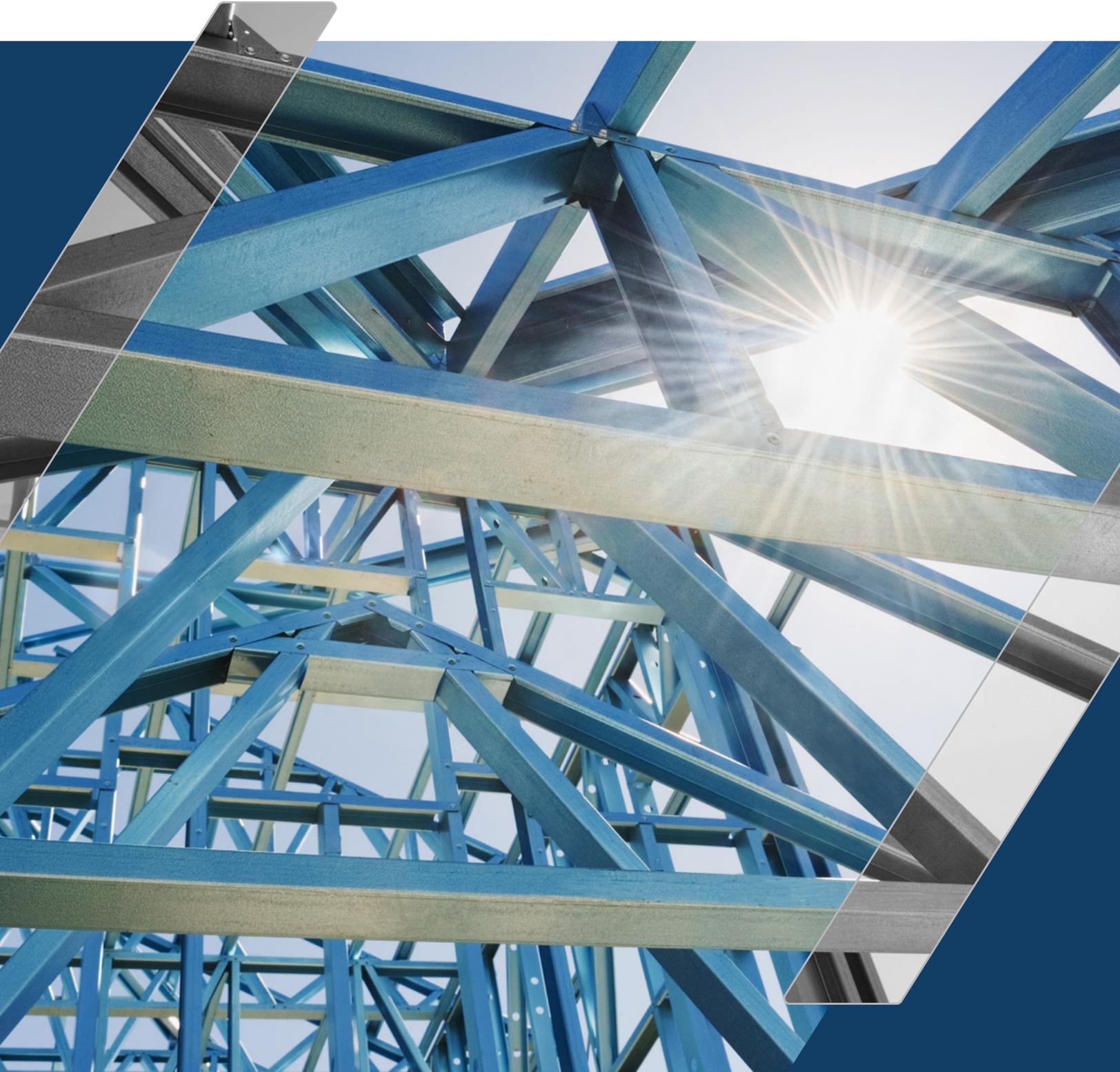


The logo consists of a stylized graphic of vertical bars of varying heights and widths, resembling a bar chart or a structural element, in shades of blue and grey.

**SUSTAINABLE  
STEEL  
PRINCIPLES**

# **2023 Annual Report**





# 2023 Annual Report

## CONTENTS

<b>Foreword by Erik van Doezum and Christophe Hadjal.</b> . . . . .	3
<b>Executive Summary</b> . . . . .	5
<b>Supporting Global Steel Decarbonization</b> . . . . .	6
The Steel Sector’s Low-Carbon Transition Will Require Proactive Industry Action . . . . .	6
Policy Developments and Increased International Collaboration. . . . .	7
A Stubborn Challenge . . . . .	8
Forging Ahead . . . . .	8
<b>Signatories</b> . . . . .	9
<b>About the Sustainable STEEL Principles</b> . . . . .	10
Scope of the Principles . . . . .	12
Alignment and Trajectories. . . . .	12
Optional Forward-Looking Indicator . . . . .	13
<b>2022 Reporting Results</b> . . . . .	15
<b>Key Terms</b> . . . . .	26
<b>References</b> . . . . .	27
<b>Acknowledgements.</b> . . . . .	28

# Foreword

We are pleased to introduce you to the Sustainable STEEL Principles first Annual Report. With the initiative's inception in September 2022, we aim to facilitate the net-zero transition of the steel industry by providing a methodology for banks to measure and report the emissions associated with their loan portfolios compared with net-zero pathways. In this report, signatories of the principles will for the first time disclose the climate alignment of their steel portfolios.

The Sustainable STEEL Principles (SSP) are based on the experience gained from the Poseidon Principles for maritime shipping, as well as a thorough consultation process with a wide variety of stakeholders. Following a similar logic, the SSP enable lenders to indicate their expectations in terms of financing to support their decarbonization.

Steel is used in everything from cars and fridges to buildings and planes. However, because of the sector's reliance on coal, it contributes 8% of CO<sub>2</sub> emissions globally. With demand for steel projected to grow 30% by 2050, emissions are set to rise significantly if we continue with business as usual. As a result, decarbonizing this sector is simultaneously one of the greatest challenges and opportunities of our time. Frameworks such as the SSP can help banks set impactful targets, support the practical achievement of net-zero emissions in carbon-intensive industries, and provide financial institutions with the tools for effective client engagement. STEEL stands for the five principles of the agreement: Standardized assessment, Transparent reporting, Enactment, Engagement, and Leadership.

This first Annual Report marks a significant milestone in the joint efforts of the Signatories for steel finance. The SSP Signatories were the first to embrace some of the recommendations made by



the Net Zero Steel Pathway Methodology Project (NZSPMP). Other standards, like the Science Based Targets Initiative (SBTI) and the Climate Bonds Initiative (CBI), have followed that example, and signatories will continue to reflect on collective progress to allow the principles to evolve and expand over time, in collaboration with other important standard-setters. This ensures that the principles remain robust and up-to-date with international goals to promote a transition toward a low-carbon steel industry.

The SSP are being used by banks to guide decision-making and client engagement. The ambition of signatories is to accompany their existing clients as they implement their transition strategies while also delivering tailor-made financing solutions to low-carbon ventures. For instance, the H2 Green Steel project intends to produce 2.5 mt of near-zero steel, relying on green hydrogen generated from renewable power to reduce the carbon emissions of the steel manufacturing process. For this, EUR 6.5bn of funding had to be raised, of which EUR 4.2bn was project finance debt. It is an emblematic example of how financial institutions can support innovative technology to help achieve decarbonization, however it also shows the vast amounts of capital required for the transition to occur.

The SSP were developed in an effort spearheaded by five leading banks — Citi, ING, Société Générale, Standard Chartered, and UniCredit — in collaboration with key stakeholders — ArcelorMittal, Climate Bonds Initiative, Ceres, JSW,

Mission Possible Partnership, ResponsibleSteel, United States Steel, World Steel Association and others – with expert support provided by RMI.

Given the importance of creating solid and standardized metrics for measuring climate alignment, as well as the significant challenge of decarbonizing the steel industry, we continue to encourage other institutions to join us and share in the collaborative efforts to help achieve significant progress in steel decarbonization

**Erik van Doezum**

*Chair, Sustainable STEEL Principles  
Head of Metals, Mining and Fertilizers Germany /  
Global Steel Lead at ING*

**Christophe Hadjal**

*Vice Chair, Sustainable STEEL Principles  
Managing Director and Regional Head for Europe  
Mining, Metals, and Industries Finance at Société  
Générale*

# Executive Summary

The inaugural Annual Report for the Sustainable STEEL Principles marks a significant milestone in the journey toward steel industry decarbonization. For the first time, this report compiles the climate alignment scores of the six SSP signatory banks — Citi, Crédit Agricole CIB, ING, Société Générale, Standard Chartered, and UniCredit — showcasing their commitment to supporting the reduction of carbon emissions in steel production.

Climate alignment is defined as the degree to which the emissions intensity of production of steel sector clients is below or exceeds the emissions intensity (scrap charge adjusted) benchmarks for the sector necessary to keep global warming well below 2°C and, if possible, below 1.5°C.

## SSP 2023 Key Findings

### 1. **Of the SSP signatories, 83% have steel lending portfolios aligned with well below 2°C**

The average alignment score of the SSP signatories met the well-below 2°C benchmark, demonstrating a collective commitment to supporting low-carbon steelmaking. Individual scores showed that 33% of signatories achieved alignment with 1.5°C, 50% achieved alignment with well below 2°C, and only one was misaligned with the benchmarks.

### 2. **Banks lending to emerging or blast furnace reliant markets where investment is most needed are less aligned**

Signatories with higher scores, reflecting lower climate alignment, often have increased exposure to emerging markets and blast furnace operations. Accelerating the steel sector's decarbonization will require significant investment to upgrade to more efficient technologies and energy sources. Banks lending to emerging markets — where transformation is both challenging and essential — have the biggest opportunity to positively influence the steel sector's transition through guidance and engagement.

### 3. **SSP signatories are more climate aligned than the steel sector**

The overall steel sector is not on track with either the well below 2° or the 1.5° benchmark based on a review of sector-wide emissions data from CRU's Asset Platform. Although the overall steel sector's alignment indicates an industry-wide need for enhanced efforts, the SSP signatories have demonstrated a clear commitment to supporting the transformation of the steel industry.

# Supporting Global Steel Decarbonization



**T**he inaugural Annual Disclosure Report for the SSP covers data for 2022 and comes as the world grapples with the escalating challenges of climate change. The key threshold of 1.5°C degrees of warming from preindustrial levels was breached on about one-third of the days in 2023,<sup>1</sup> leading to more frequent and severe weather events. Meanwhile, the steel industry, which is responsible for approximately 8% of global greenhouse gas emissions,<sup>2</sup> faced intensifying scrutiny and pressure to transition toward more sustainable practices.

The steel sector's shift toward decarbonization presents not only considerable challenges but also incredible opportunities for innovation and sustainable growth. The SSP play a crucial role in this transformation, offering guiding principles that foster a collaborative relationship between the steel industry and its financial partners, paving the way for real economy impact.

## The steel sector's low-carbon transition will require the industry to be proactive

From industry, there is encouraging momentum toward net-zero alignment as evidenced by the increasing number of projects dedicated to developing near-zero-emissions steel production processes. The direct reduction of iron using hydrogen (H<sub>2</sub>-DRI) has emerged as a promising technology, with H<sub>2</sub> Green Steel serving as a prominent example of its application. The Swedish company received groundbreaking commitments from half of the signatories to the SSP<sup>3</sup> — ING, Société Générale, and UniCredit. Together with two other commercial banks and the support of multilateral and public institutions, these signatories will

support the development of one of the world's first large-scale green steel plants. H2 Green Steel and HYBRIT — another ambitious near-zero-emissions steelmaking project — are expected to become operational by mid-decade,<sup>4</sup> with several off-take agreements indicating rising market demand for low-carbon steel.

However, the current pipeline of low- and near-zero-emissions projects fall short of what is required to meet either the 1.5°C and well-below 2°C benchmarks used in the SSP (see *Alignment and Trajectories*). Approximately two-thirds of all announced steelmaking projects worldwide still fall into the high-emissions category, indicating a gap that needs to be addressed to avoid emissions lock-in and meet future decarbonization goals.<sup>5</sup>

## Policy developments and increased international collaboration

Significant developments have also been seen in the policy arena across various regions. The European Union (EU) took a proactive stance with the Green Deal Industrial Plan<sup>6</sup> — aimed at enhancing the competitiveness of Europe's net-zero industry — and the introduction of the Carbon Border Adjustment Mechanism. In the United States, the Inflation Reduction Act of 2022 allocated \$5.8 billion specifically for investments in industrial decarbonization.<sup>7</sup> This substantial funding is expected to catalyze the development of hydrogen and carbon capture, utilization, and storage projects in the United States (US) steel sector. Such policy support is critical for development of pioneering low-carbon projects and infrastructure, and presents a significant opportunity for industry to invest in the technologies that will drive deep decarbonization over the coming decades.

International collaboration on steel decarbonization has gained momentum as well. The Breakthrough Agenda launched at the UN Climate Change Conference (COP26) in Glasgow in November 2021<sup>8</sup> now has the backing of countries representing more than 50% of global emissions. During COP27, the initiative announced “priority actions” to support industrial decarbonization, including a commitment to clearly define near-zero-

emissions steel to help direct billions of dollars in investments, procurement, and trade.

COP28 saw the publication of the Steel Standards Principles, a set of common principles for the alignment of emissions measurement standards for a near-zero-emissions iron and steel industry. Developed collaboratively by important standard-setting bodies — including ResponsibleSteel, the CEM Industrial Deep Decarbonization Initiative (IDDI), the World Trade Organization, the International Energy Agency (IEA), and the World Steel Association — these principles were further endorsed by 35 key players in the steel sector, including major producers and industry groups. These standards represent the first step in building a consistent vision for driving emissions reductions in the steel industry, uniting key industry stakeholders under a shared goal and laying the groundwork for collaboration.

COP28 further saw major commitments from Canada, Germany, the United Kingdom, and the United States — all members of the IDDI — which included pledges for the procurement of low-carbon steel to spur innovation through increased demand. These pledges underscore the global movement toward a decarbonized steel industry, marking it as the path forward for major economies.

## A stubborn challenge

Despite these positive developments, the total CO<sub>2</sub> emissions from the iron and steel sector have continued to rise over the past decade. Applying asset-level data from CRU's Asset Platform to the SSP methodology, we estimate that only about 30% of the sector's production is currently aligned with 1.5°C. In other words, just 30% of all steel is currently being produced by plants whose CO<sub>2</sub> footprint has kept pace with the necessary reductions for the steel sector to meet globally agreed-upon climate targets. The alignment score for the sector as a whole is 1.41, or misaligned with both the 1.5°C-aligned and well-below 2°C benchmarks of the alignment zone, placing into context both the efforts of the SSP signatories and the scale of the challenge ahead.

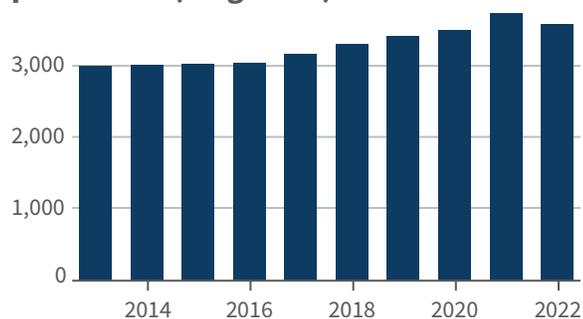
To operate within the SSP's alignment zone, which requires reductions in average emissions intensity of 24% (well-below 2°C alignment) to 33% (1.5°C alignment) by 2030 from a 2020 baseline, the sector needs to escalate its efforts. In addition to reducing the emissions intensity of existing production, climate alignment for the steel sector requires the scaling of innovative, near-zero-emissions steel production. The Mission Possible Partnership (MPP) Technology Moratorium (TM) scenario roadmap — the lower bound of the SSP's alignment zone — requires close to 30 new near-zero plants producing primary steel to be operational by 2030.<sup>9</sup> The recent expansion in the near-zero project pipeline, while encouraging, leaves a significant gap that will need to be filled to achieve this milestone.

In terms of policy, although the new EU and US legislation is promising, and commitments to green steel procurement are a good start, further action is needed. Achieving the emissions reductions under the IEA Net Zero Emissions by 2050 scenario (NZE), consistent with limiting global temperature rise to 1.5°C, without overshoot, assumes a supportive policy environment including the global implementation of carbon pricing to support an international market for green steel. Without increased international cooperation and legislative incentives, the global steel sector will not transition at the required pace.

## Global average emissions intensity of crude steel production



## Total global CO<sub>2</sub> emissions of crude steel production (megatons)



RMI Graphic. Source: World Steel Association

## Forging ahead

The steel sector is at a critical juncture in its journey toward decarbonization. The first pioneering steps to net-zero have been taken, and coordinated efforts — encompassing industry players, financial institutions, and policymakers — are taking place across the full value chain. Despite these positive strides, the sector's current trajectory is not aligned with a 1.5°C or even well-below 2°C pathway. As the major providers of financing to the steel sector, banks hold one of the key levers for accelerating change. Moving ahead, SSP signatories will continue to assess the evolving dynamics of the sector to maintain informed and responsible engagement.

# Signatories



## Steering Committee

**Citi:** William Husband, *Global Head of Metals and Mining*

**Crédit Agricole CIB:** Jérôme Bernard, *Global Head of Metals and Mining*

**ING:** Erik van Doezum, *Head of Metals, Mining and Fertilizers Germany / Global Steel Lead at ING*

**Société Générale:** Christophe Hadjal, *Managing Director and Regional Head for Europe Mining, Metals, and Industries Finance*

**Standard Chartered:** Ben Daly, *Head of Transition Finance*

**UniCredit:** Marc Thümecke, *Managing Director, Infrastructure & Export Financing, Advisory and Financing Solutions*

→ Learn more about SSP governance.

# About the Sustainable STEEL Principles



**T**he SSP provide a sector-specific measurement and disclosure framework for banks, enabling lenders to support the decarbonization of the steel sector and assess climate progress, in line with the Net-Zero Banking Alliance’s guidelines. The framework informs banks of how emissions-intensive their steel loans are relative to net-zero pathways needed to stay within our planet’s remaining carbon budget. The financial institutions that have adopted the framework commit to disclosing the alignment of their lending portfolios against these pathways.



The SSP include a fit-for-purpose methodology that is harmonized with various existing standards and optimizes for emissions reductions in the steel sector. The framework’s data collection process and reporting guidance for steelmakers and lenders streamline disclosure and increase transparency, and the inclusion of net-zero scenarios informs target-setting and supports client engagement.

Launched in 2022 with six founding signatories — Citi, Crédit Agricole CIB, ING, Société Générale, Standard Chartered, and UniCredit — the SSP were developed over 18 months by RMI and five working group banks, in consultation with over 80 institutions across finance, industry, and civil society, including 30 steelmakers and industry associations.

Under the SSP, signatories commit to the following five principles:



#### Principle 1

### **Standardized assessment**

To report on the climate alignment of their steel lending portfolios, signatories will annually assess their climate alignment according to the SSP guidance and methodology.

#### Principle 2

### **Transparent reporting**

Signatories will publish portfolio climate alignment scores, a brief narrative, and, on an optional basis, the percentage of their portfolio represented by emissions reduction targets annually.

#### Principle 3

### **Enactment**

Signatories will source data from clients or, when not available, from an approved third-party data provider.

#### Principle 4

### **Engagement**

Signatories recognize the importance of client engagement to maximize real economy impact. Using the information obtained from the alignment scores of steelmakers, signatories are encouraged to engage with clients to advance emissions reductions in line with the global efforts to limit the temperature increase to 1.5°C.

#### Principle 5

### **Leadership**

Signatories are encouraged to set steel portfolio targets informed by the SSP. Signatories commit to updating the SSP as data evolves and are encouraged to utilize the principles for advocacy purposes, in the interest of decarbonizing the steel industry.

---

The SSP are modeled on the groundbreaking Poseidon Principles for shipping. Launched in 2019, the Poseidon Principles now include 30 financial institutions covering more than 70% of global ship finance. Following the example of the Poseidon Principles, the SSP similarly enable lenders to measure and disclose alignment, as well as signal their expectations for emissions reductions to their stakeholders and engage their clients to identify financing available to support their decarbonization.

## Scope of the Principles

The SSP emphasize transparent and consistent reporting practices while offering flexibility that allows signatories to voluntarily expand the scope of their reporting to include a wider range of entities and financial products, provided these are consistently reported and disclosed.

The scope of the SSP, designed to enable comprehensive reporting on bank lending portfolios, is established as follows:

- **Clients:** Referred to as “in-scope counterparties” under the SSP methodology are defined as those that:
  - Produce a minimum of 250 kilotons/year of crude steel; and
  - Generate 20% or more of total revenue through crude steelmaking activities.Signatories may voluntarily report on entities with steel production below the specified threshold, provided that this is done consistently and disclosed in the reporting.
- **Financial products:** Referred to as “in-scope financings” under the SSP methodology include bilateral loans, syndicated loans, and club deals. Bank guarantees, letters of credit, and factoring programs — though they are credit products — are designated as voluntary for reporting due to complexities of adding them to the framework.<sup>i</sup>
- **Exposure:** Signatories may determine the exposure to each client by considering either the total of drawn and undrawn amounts of in-scope financings, or the drawn amounts under the financings as of the end of the year (December 31). The selected measurement method must be uniformly applied across all portfolio calculations and explicitly disclosed in the reporting.
- **Tenor:** Signatories commit to reporting in-scope financings with an original tenor of at least one year. Reporting on financings with shorter tenors is optional but, if undertaken, must be consistently applied across the portfolio and disclosed annually.

## Alignment and Trajectories

To calculate alignment of steelmakers and, in turn, lending portfolios, the SSP use an “alignment zone” demarcated by two scenarios. The lower-bound scenario, or emissions reduction trajectory, is the NZE laid out by the IEA. The upper bound is the MPP TM scenario — one of several within the Steel Sector Transition Strategy Model.

Signatories that choose to set their individual targets using the SSP can rely on the IEA NZE to set 1.5°C-aligned targets. However, as there are several uncertainties surrounding the decarbonization of the steel sector, the SSP also measure steelmakers against the MPP TM as an additional scenario. The IEA NZE is a top-down model of the global economy, highlighting the steps necessary to achieve the most ambitious climate goals, while the MPP TM is a granular bottom-up model that reflects the technological and economic conditions of the currently prevailing regulatory framework.

---

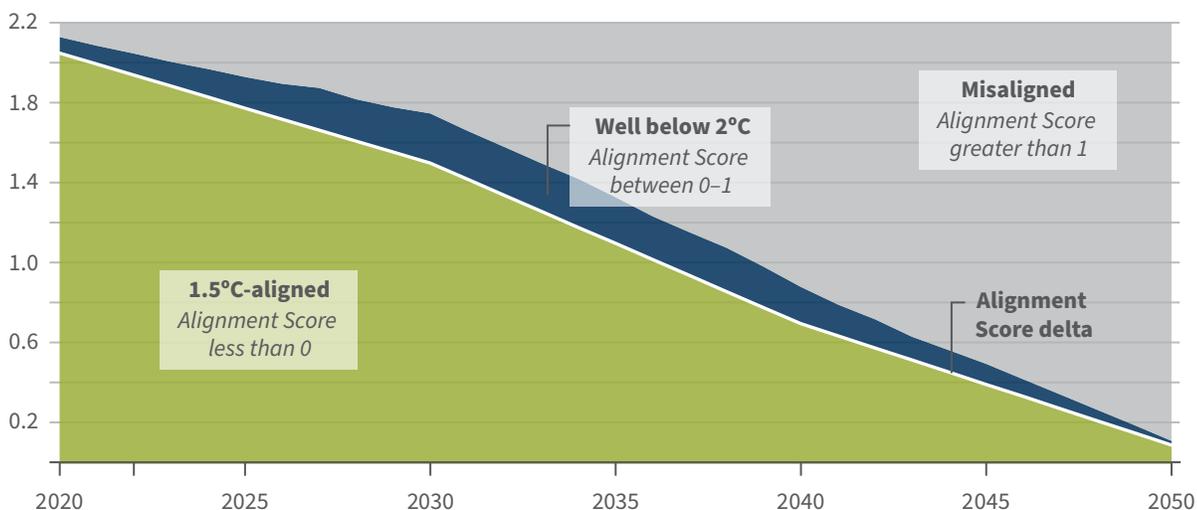
<sup>i</sup> If these voluntary products are reported, they must be consistently included in all portfolio calculations and their inclusion disclosed.

Together, these two trajectories form three alignment categories that make up an alignment zone. These categories are the following:

- **1.5°C-aligned:** Steelmakers or portfolios with an annual emissions intensity lower than the IEA NZE
- **Well below 2°C:** Steelmakers or portfolios with an annual emissions intensity above the IEA NZE but below the MPP TM
- **Misaligned:** Steelmakers or portfolios with an annual emissions intensity above the MPP TM

## The Alignment Zone

Emissions intensity ( $t\ CO_2/t\ steel$ )



Note: Benchmarks are illustrative and based on estimated sector average inputs to production consisting of 33% scrap. RMI Graphic. Source: The Sustainable STEEL Principles

A steelmaker or portfolio score greater than 1 reveals that the steelmaker or portfolio is misaligned with both the 1.5°C and the well-below 2°C scenarios. A score between 0 and 1 reveals that the steelmaker or portfolio is aligned with the well-below 2°C scenario. Finally, a negative score indicates that the steelmaker or portfolio is aligned with the 1.5°C scenario.<sup>ii</sup>

## Optional Forward-Looking Indicator

Under the Sustainable STEEL Principles, signatories may report a forward-looking metric on an optional basis, in addition to reporting on the climate alignment of their portfolio for the previous year. This indicator is intended to reflect the net-zero ambition of their clients for 2050, or earlier, and their interim emissions reduction targets for 2030, or earlier. Should signatories opt to report their forward-looking indicator, the following should be disclosed:

- The percentage of the portfolio that has publicly committed to net-zero emissions for Scope 1 and 2 emissions by 2050, or earlier
- The percentage of the portfolio that has publicly committed to interim emissions reduction targets at the group level for Scope 1 and 2 emissions by 2030, or earlier

<sup>ii</sup> For more information on the methodology for calculating alignment scores, please refer to the SSP.

### RELATED LINKS

→ Learn more about **SSP methodology**.

→ Learn more about the **SSP alignment zone**.

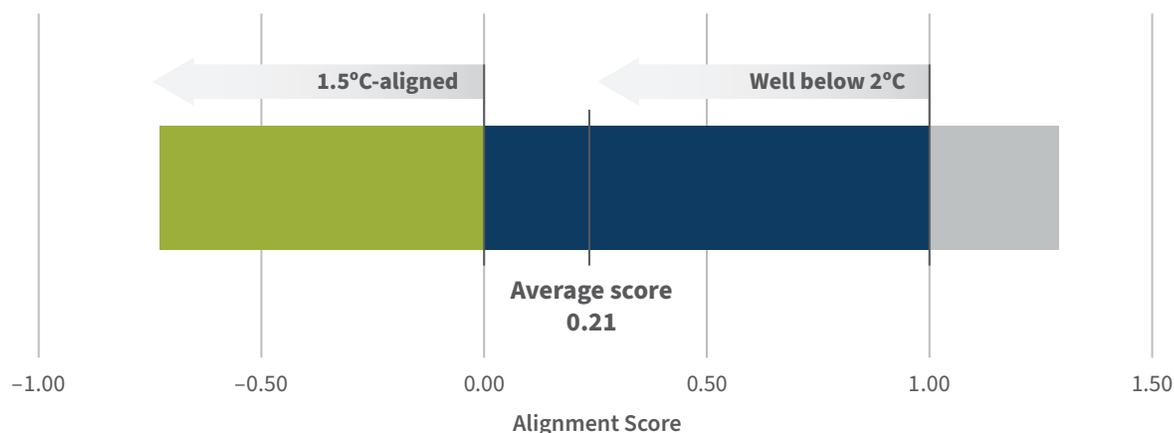


# 2022 Reporting Results

In this first SSP Annual Report, we present the climate alignment scores of the SSP signatories based on 2022 data. As a reminder, under the methodology of the SSP, a portfolio score greater than 1 reveals that the steelmaker or portfolio is misaligned with both the 1.5°C and the well-below 2°C benchmarks of the alignment zone; a score between 0 and 1 reveals that portfolio is aligned with the well-below 2°C benchmark; and a negative score indicates that the portfolio is aligned with the 1.5°C benchmark (see *Alignment and Trajectories*).

The simple average climate alignment score across all SSP signatories is 0.21, reflecting a general trend toward portfolios aligning with well-below 2°C targets and demonstrating a collective commitment to supporting low-carbon steelmaking.

## 2022 SSP Signatory Reporting Results



Note: This graphic shows the range of reported scores, with lines at 0.00 (a portfolio score aligned with 1.5°C), at 1.00 (a portfolio score aligned with well below 2°C), and at the average score of 0.21.  
RMI Graphic. Source: RMI

Individually, the scores range from -0.69 to 1.26. The lowest score of -0.69 falls within the 1.5°C-aligned zone, indicating emissions intensity lower than the IEA NZE benchmark and demonstrating a leading commitment to low-carbon steelmaking. In this reporting cycle, 33% (two out of six) of signatories have achieved this strong alignment.

The highest score reported was 1.26, falling short of the well-below 2°C benchmark and within the misaligned zone. It should be noted that signatories with higher scores often have increased exposure to emerging markets and blast furnace operations, and that this exposure is precisely where transformation is both challenging and essential, and where the signatories' guidance and engagement are most needed. In this year's report, one reported score falls into this category.

The remaining 50% (three out of six) of the signatories fall into the well-below 2°C zone with scores between 0.02 and 0.55. These portfolios are above the ideal IEA NZE scenario but still under the threshold that marks misalignment with global warming targets. These scores reflect the net-zero commitments of the signatories while also underscoring the need for continued efforts.

The inclusion of voluntary elements by the signatories adds to the comprehensiveness and depth of the reporting:

- Two signatories have included clients below the production threshold, encompassing smaller-scale steel producers.
- Three signatories incorporated factoring programs or other voluntary products, expanding the range of financial products under consideration.
- Four signatories reported on financings with a tenor of less than one year to account for the impact of short-term financing.
- Significantly, three signatories reported the optional forward-looking indicator, highlighting a proactive approach that anticipates trends in addition to assessing current standings.

In summary, while the overall steel sector score of 1.41 indicates an industry-wide need for enhanced efforts, the SSP signatories have demonstrated a clear commitment to supporting the transformation of the steel industry. In the following pages, the six founding SSP signatories discuss the climate alignment scores of their portfolios and disclose their strategies for supporting the steel sector's decarbonization in line with the global efforts to limit the temperature increase to 1.5°C.



PORTFOLIO ALIGNMENT SCORE

0.02

PARAMETERS USED FOR REPORTING

**Applicable entities within the bank to which the data pertains**

Corporate and commercial banking

**Exposure**

Based on drawn and undrawn amounts for committed financings and drawn amounts for uncommitted financings

**Voluntary products included**

Factoring programs

**Clients below production threshold**

Not included

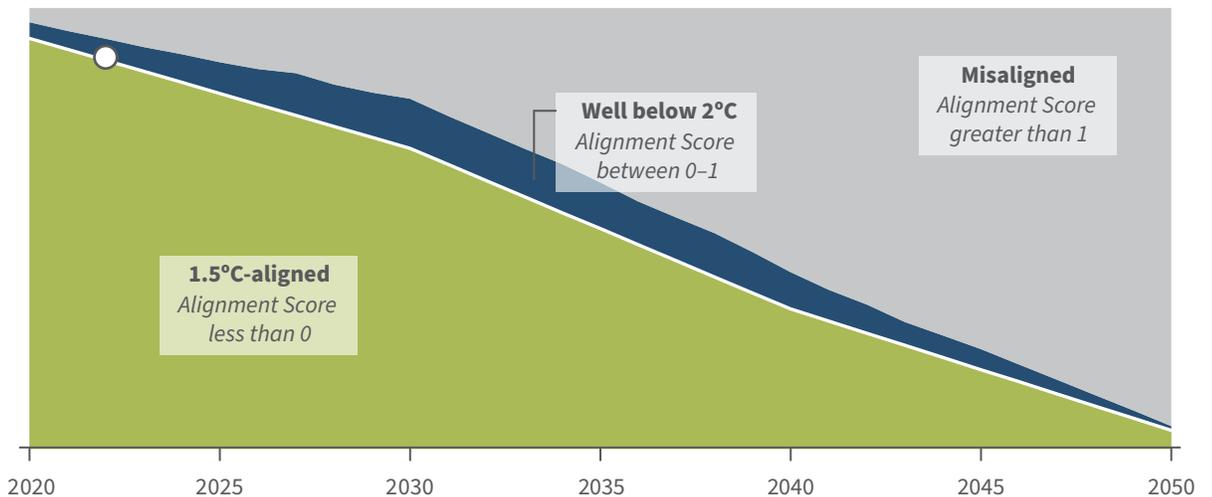
**Financings with tenor less than a year**

Included

## What are your key takeaways from your climate alignment score?

Citi recognizes the importance of the transition to a low-carbon economy and the role a global bank can play in supporting our clients as they seek to decarbonize their businesses. The Sustainable STEEL Principles offer a useful methodology to track our progress and measure the emissions associated with our lending portfolio in this sector. Having conducted a comprehensive analysis of Citi's lending relationships with clients across the sector and with the data support from CRU, we estimated the steel portfolio score for 2022, yielding a portfolio alignment score of 0.02. Citi is pleased to make our first portfolio alignment score disclosure for the steel portfolio. In 2022, it is placed within the well-below 2°C category of the alignment zone with emissions intensity remaining above the IEA NZE but below the MPP TM benchmark. The score was derived based on agreed-upon methodology for in-scope financings across a selected portfolio of steel clients on a best effort basis.

○ Citi 2022 Alignment Score: 0.02



Note: Benchmarks above are illustrative to preserve the confidentiality of clients. RMI Graphic. Source: The Sustainable STEEL Principles

## How will the SSP influence your business activities and decision-making in the future?

Citi has set an interim target to have a climate alignment score of 0 in 2030, aligning with the IEA NZE 2050 scenario. Based on the emissions reduction targets data reported by steel clients and data providers, 81% of exposure in our steel finance portfolio is associated with clients who have publicly-committed interim emissions reduction targets by 2030 and 74% of exposure is associated with clients that have net-zero targets by 2050 or before. The SSP framework provides us with valuable insights that will help us measure the pathways for the sector as well as track and report progress toward our 2030 interim targets and our commitment to net-zero by 2050.

### Optional Forward-Looking Indicator

Percentage of portfolio that has set interim emissions reduction targets



Percentage of portfolio that has publicly committed to net-zero emissions by 2050



RMI Graphic. Source: RMI

PORTFOLIO ALIGNMENT SCORE

**-0.17**

PARAMETERS USED FOR REPORTING

**Applicable entities within the bank to which the data pertains**

Corporate and investment banking

**Exposure**

On and off-balance sheet

**Voluntary products included**

Not included

**Clients below production threshold**

All clients are above the production threshold

**Financings with tenor less than a year**

Not included

## What are your key takeaways from your climate alignment score?

For 2022, Crédit Agricole CIB's Portfolio Alignment Score is -0.17, meaning that the portfolio is aligned with the IEA's NZE scenario.

Our steel portfolio comprises a wide variety of clients, spread over different geographical regions. Some of our clients are already announcing ambitious decarbonization targets. For those not yet aligned with a 1.5°C trajectory, we intend to strengthen our dialogue with them to help them decarbonize their activity.

## How will the SSP influence your business activities and decision-making in the future?

As a member of the Net-Zero Banking Alliance, we are committed to reducing the GHG emissions associated to our financings. On December 6, 2022, Crédit Agricole S.A. presented its vision of the energy transition and set ambitious targets in

five sectors: oil and gas, electricity, automotive, commercial real estate, and cement. In addition, on December 14, 2023, Crédit Agricole S.A. presented new commitments for five other sectors: shipping, aviation, steel, residential real estate, and agriculture. In the steel sector, we are committed to reducing our portfolio intensity 26% by 2030, compared with a 2020 baseline. Therefore, we would reach an intensity of 1.4 tons CO<sub>2</sub>/ton of crude steel in 2030.

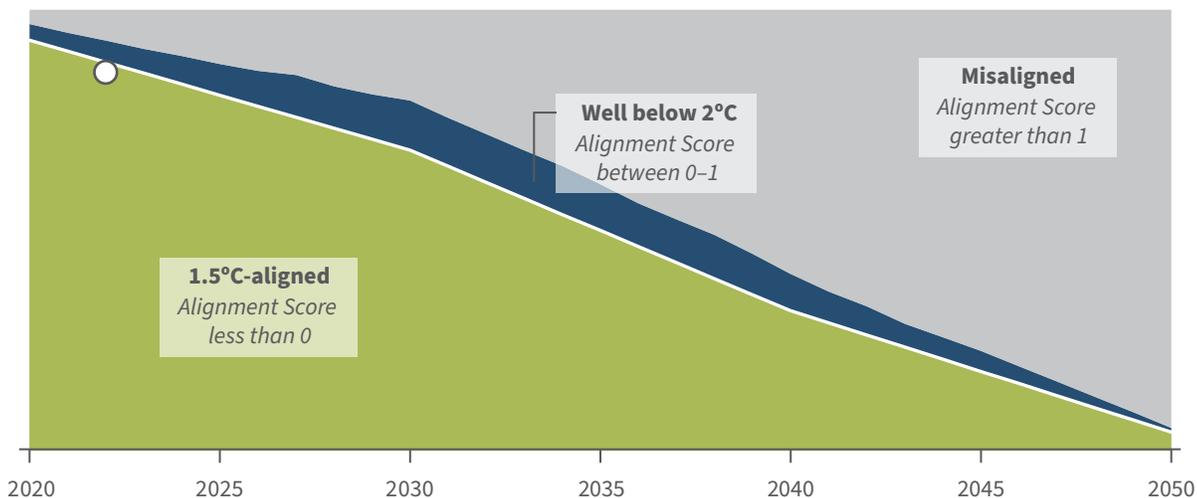
In addition, we have joined the SSP because steel is a key sector of the economy that we want to support in decarbonization. Indeed, demand for steel is set to increase in the coming years because it will play a central role in the energy transition — for building wind turbines, solar panels, electric vehicles, etc. — hence the importance of developing decarbonized production routes.

To reach our decarbonization target in the steel sector, we plan to employ the following levers:

- Implement governance at the Group's highest level to define and follow through with our commitments, with quarterly monitoring.

○ CACIB 2022 Alignment Score: **-0.17**

*Continued on next page*



Note: Benchmarks above are illustrative to preserve the confidentiality of clients. RMI Graphic. Source: The Sustainable STEEL Principles

*Continued from previous page*

- Accompany our clients over the long term by supporting them in the investment needed to decarbonize their activity (by decarbonizing blast furnaces, notably their feed, recycling the energy they produce, or using low-carbon electricity and technologies like carbon capture, utilization, and storage). Also, we will support the development of direct reduced iron facilities, gas or hydrogen-based, and emerging low-emissions technologies such as direct smelting of iron ore.
- Develop project financings of low-carbon steel production technologies.
- Monitor our steel portfolio, with reallocation in favor of the most ambitious players.

PORTFOLIO ALIGNMENT SCORE

0.15

PARAMETERS USED FOR REPORTING

**Applicable entities within the bank to which the data pertains**

ING Group global level

**Exposure**

Based on all drawn amounts

**Voluntary products included**

Bank guarantees, factoring programs, and letters of credit

**Clients below production threshold**

Not included

**Financings with tenor less than a year**

Included

### What are your key takeaways from your climate alignment score?

As a strategic partner to our clients, our immediate objective is to understand where they are in terms of carbon intensity and what their strategic targets are for 2030 and 2050. This allows us to engage in meaningful dialogue with them, not just around strategy and investments, but also concerning how they can best match their strategy to their funding profile and highlight where changes are necessary.

Our climate alignment score reflects the transition process of our current and new clients; it is in line with the well-below 2°C trajectory and close to being 1.5°C-aligned. It shows that by actively engaging on the topic of climate alignment, ING is getting closer to its targets. We will continue with our team dedicated to the steel sector to continue to engage regularly with clients across the globe on sustainability and strategy to make this possible.

### Optional Forward-Looking Indicator

Percentage of portfolio that has set interim emissions reduction targets

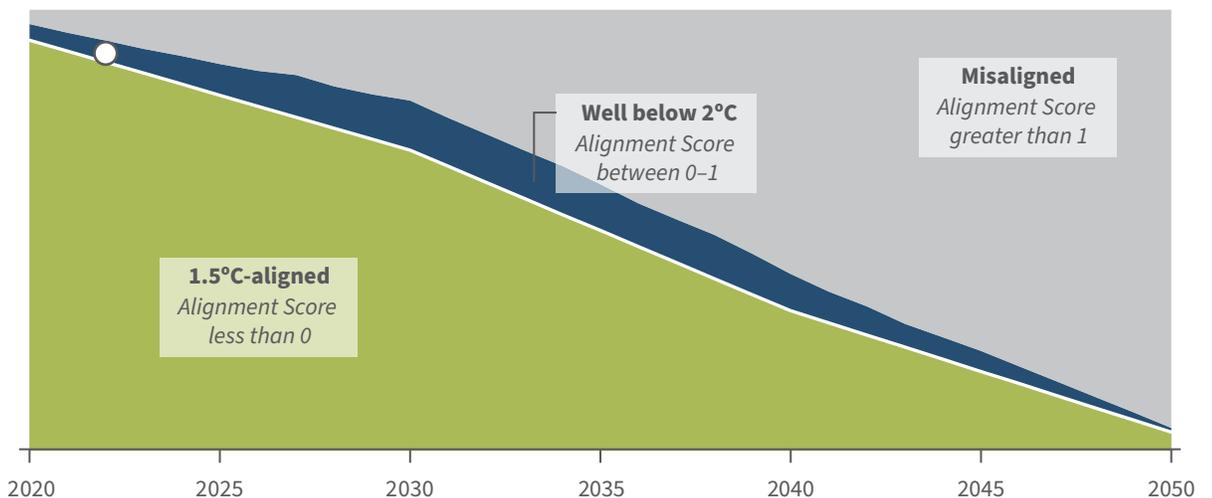


Percentage of portfolio that has publicly committed to net-zero emissions by 2050



RMI Graphic. Source: RMI

### ING 2022 Alignment Score: 0.15



Note: Benchmarks above are illustrative to preserve the confidentiality of clients. RMI Graphic. Source: The Sustainable STEEL Principles

PORTFOLIO ALIGNMENT SCORE

**0.55**

PARAMETERS USED FOR REPORTING

**Applicable entities within the bank to which the data pertains**

Société Générale and all consolidated companies over which the Group exercises exclusive control (excluding asset management activities)

**Exposure**

Based on drawn and undrawn amounts for committed financings and drawn amounts for uncommitted financings

**Voluntary products included**

Bank guarantees, factoring programs, and letters of credit

**Clients below production threshold**

Not included

**Financings with tenor less than a year**

Included

## What are your key takeaways from your climate alignment score?

Société Générale’s portfolio is currently aligned with the MPP TM scenario with a score of 0.55 at the end of 2022. The calculation of the alignment score is subject to the following limitations and assumptions:

- The definition of the client scope is complex, as identifying clients that actually produce crude steel is not trivial given the varying degrees of integration and diversification of players along the value chain.
- The data quality remains a challenge, and the calculation of the score is very sensitive to the scrap share and intensity assumptions. As such, restatements might be necessary in the coming years to refine the scope, data, and calculations.

## How will the SSP influence your business activities and decision-making in the future?

Société Générale adopted a target to align its portfolio with the IEA NZE by 2030 (based on the

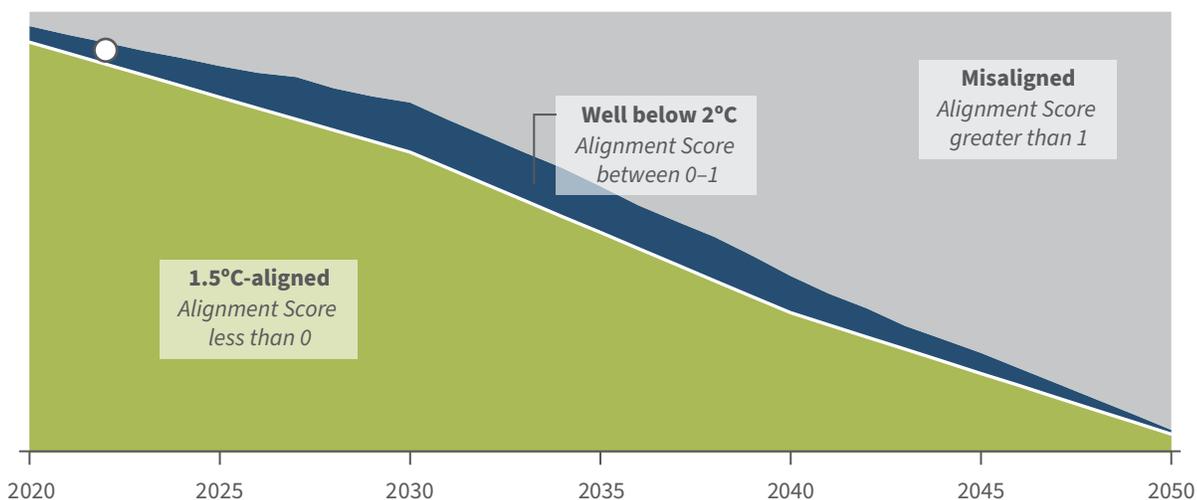
fixed boundary system defined under the SSP methodology), which means reaching an alignment score of 0 through origination policies that support the decarbonization efforts of the steel sector.

To achieve this target, Société Générale has developed a policy based on the IEA NZE scenario which shows that secondary steel volumes (based on the use of scrap) would remain limited and cover up to 46% of total steel production in 2050. As such, even if developing secondary steel looks like an attractive option for the decarbonization of steel portfolios, the internal policy needs to address both the emissions reduction from primary steel and the maximization of the use of scrap.

Société Générale’s policy therefore aims to (1) support its clients that will face important challenges to transition their assets in line with the IEA and MPP scenarios in the short term and (2) develop dedicated financing for brown-to-green and low-carbon steel projects.

*Continued on next page*

### ○ Société Générale 2022 Alignment Score: 0.55



Note: Benchmarks above are illustrative to preserve the confidentiality of clients. RMI Graphic. Source: The Sustainable STEEL Principles

*Continued from previous page*

As a concrete example, Société Générale has been acting as financial advisor to H2 Green Steel (Sweden), which will be the world's first large-scale project making green steel. Emissions will be reduced by up to 95% compared with steel produced with traditional blast furnace technology, by replacing coal in the production process with hydrogen from renewable sources.

Onboarding of new clients will also be selective to ensure that their strategy is compatible with Société Générale's target.

Finally, annual portfolio reviews will be conducted to follow progress and take corrective actions if necessary.

PORTFOLIO ALIGNMENT SCORE

**1.26**

PARAMETERS USED FOR REPORTING

**Applicable entities within the bank to which the data pertains**

Corporate, commercial, and institutional banking

**Exposure**

Based on all drawn amounts

**Voluntary products included**

Not included

**Clients below production threshold**

Included

**Financings with tenor less than a year**

Included

## What are your key takeaways from your climate alignment score?

We are pleased to report our alignment data for the first time. Our alignment score for 2022 is 1.26. Standard Chartered is at the beginning of an important journey; our steel portfolio is focused on regions where there is a dependency on traditional blast furnaces, which is reflected in our alignment data. We will use our portfolio emissions data to engage with our clients to decarbonize their activities while providing a just transition toward net-zero by 2050.

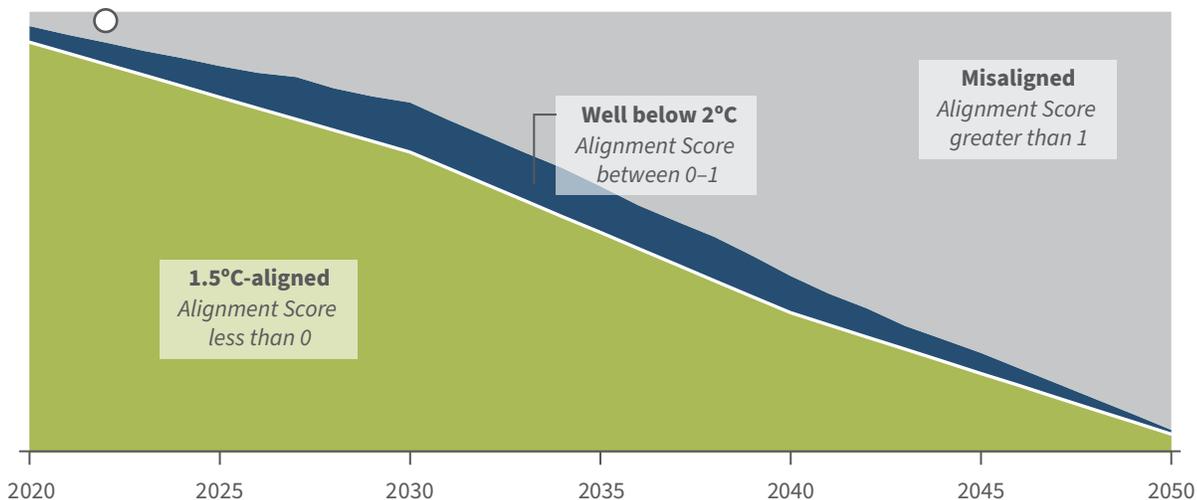
## How will the SSP influence your business activities and decision-making in the future?

We have identified four overarching technological levers for decarbonizing steel production:

- Scrap-based electric arc furnace (EAF)
- Natural gas-based direct reduction plant and electric arc furnace (NG-DRI EAF)
- Hydrogen direct reduction plant and electric arc furnace (H2-DRI EAF)
- Carbon capture and storage (BF-BOF-CCS)

The implementation and timing of the levers vary on an asset-by-asset basis. Assessing local conditions is a crucial starting point in determining the decarbonization pathway.

○ Standard Chartered 2022 Alignment Score: 1.26



Note: Benchmarks above are illustrative to preserve the confidentiality of clients. RMI Graphic. Source: The Sustainable STEEL Principles

PORTFOLIO ALIGNMENT SCORE

**-0.69**

PARAMETERS USED FOR REPORTING

**Applicable entities within the bank to which the data pertains**

All divisions and geographies of the UniCredit Group

**Exposure**

Based on all drawn amounts

**Voluntary products included**

All on balance sheet lending was considered, including factoring programs

**Clients below production threshold**

Included

**Financings with tenor less than a year**

Included

## What are your key takeaways from your climate alignment score?

UniCredit’s portfolio alignment score in 2022 was -0.69, fully aligned with the IEA NZE 1.5°C decarbonization trajectory. No dedicated financing was accounted separately in the reporting year. UniCredit looks forward to implementing dedicated financing among other current initiatives that aim to support steel clients on their journey to decarbonization.

## How will the SSP influence your business activities and decision-making in the future?

Sustainability means focusing on the long-term view as we protect the environment and support communities that rely on the industry. Steel is the backbone of the European economy but also one of the primary contributors to CO<sub>2</sub> emissions. The SSP have bridged an important gap to accelerate the financing of the transition by providing clear, transparent standards that allow us to quantify the decarbonization progress of steelmakers.

The large number of publicly disclosed commitments from the industry confirms the industry’s ambition to reach low-carbon and green production. In Europe, regulatory drivers for both steelmakers, via the EU Emissions Trading System, and steel importers, via the Carbon Border Adjustment Mechanism, reinforce the need for immediate investment into transition strategies.

According to reports from reputable sources,<sup>10</sup> steelmakers in Germany alone require approximately €10 billion in investments by 2030. Supporting decarbonization strategies improves

*Continued on next page*

## Optional Forward-Looking Indicator

Percentage of portfolio that has set interim emissions reduction targets

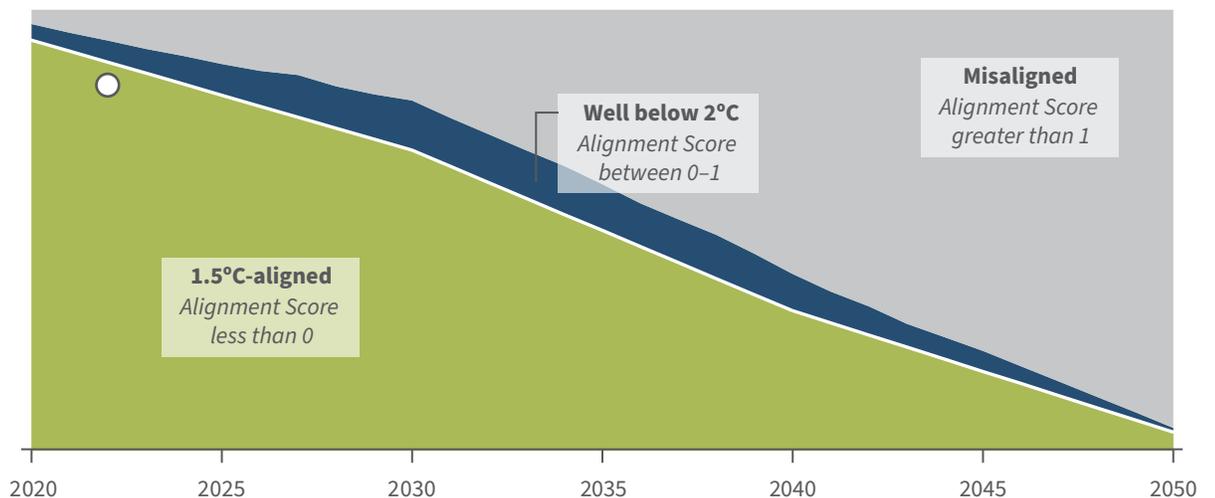


Percentage of portfolio that has publicly committed to net-zero emissions by 2050



RMI Graphic. Source: RMI

○ UniCredit 2022 Alignment Score: **-0.69**



Note: Benchmarks above are illustrative to preserve the confidentiality of clients. RMI Graphic. Source: The Sustainable STEEL Principles

*Continued from previous page*

efficiency, minimizes long-term risk, and benefits the environment and citizens. Steel is just one of the many examples. UniCredit is also supporting additional green technologies such as hydrogen, which all carry the same positive impact. Synergies and new technologies are only starting to reach scale, and we expect to see many new solutions in the coming years. The fourth Industrial Revolution brought a myriad of improvements. Sustainability is the Industrial Revolution 5.0. At UniCredit, we are firmly committed to supporting our clients in their sustainability journey and ensuring a just and fair transition.

**A message from Richard Burton,  
Head of Client Solutions at UniCredit:**

“UniCredit is setting new climate ambitions for steel following our commitment to reach net-zero by 2050. We are proud to have supported the development of the Sustainable STEEL Principles, of which we are also a signatory, as they highlight a clear decarbonization pathway while positioning investors and their clients at the forefront of green solutions. Steel will be critical to the success of European decarbonization, and it is vital to support existing producers as they transition to low-carbon and green technologies reaching net-zero targets. Putting our clients at the center, we are well positioned to provide tailored solutions which support them in reaching their transition targets.”

# Key Terms

- **Alignment score:** The weighted average emissions intensity of a steelmaker or portfolio scored in reference to two net-zero by 2050 roadmaps — the International Energy Agency (IEA) Net Zero Emissions by 2050 Scenario and the Mission Possible Partnership (MPP) Technology Moratorium scenario — as per the methodology of the SSP.
- **Alignment zone:** The alignment zone plots out two emissions reduction scenarios (benchmarks) for the steel sector reaching net-zero emissions in 2050. The lower scenario is the IEA Net Zero Emissions by 2050 Scenario, while the upper scenario is the MPP Technology Moratorium scenario, one of several within the Steel Sector Transition Strategy Model.
- **Crude steelmaking activities:** The sale of steel products manufactured using crude steel produced in-house by the same counterparty.
- **Emissions intensity:** Total CO<sub>2</sub> emissions — including direct emissions, indirect emissions, and credits per the scope defined by the SSP — divided by the tons (t) of steel produced from the steelmaking processes of the fixed system boundary of the SSP. Tons of steel produced is defined as tons of final steel product from any of the downstream processes included in the fixed system boundary. Nonintegrated producers, where they are unable to collect data on steel products produced from downstream processors, may report on tons of crude steel produced as a proxy.
- **Fixed system boundary:** All processes, whether on-site or imported, whose emissions are in scope for the SSP, including raw materials preparation, ironmaking, steelmaking, and auxiliary processes.
- **In-scope counterparty:** A counterparty that produces a minimum of 250 kilotons/year of crude steel and whose crude steelmaking activities represent 20% or more of its total revenue. If a counterparty is a diversified producer that is currently producing crude steel, it is considered an in-scope counterparty only if crude steelmaking activities represent 20% or more of total revenue.
- **In-scope financing:** Financing provided to an in-scope counterparty or to a financial or trading company and covered by the parent guarantee of an in-scope counterparty as per the SSP methodology.
- **Portfolio alignment score:** A measure of the climate alignment of a signatory's steel-lending portfolio, calculated as a climate alignment score, by taking a weighted average of the emissions intensity and scrap charge of the portfolio, weighted by exposure to each client.

# References

1. Matt McGrath et al., “World Breaches Key 1.5C Warming Mark for Record Number of Days,” BBC, October 6, 2023, <https://www.bbc.com/news/science-environment-66857354>
2. Peter Levi, Tiffany Hall, and Peter Bass, *Emissions Measurement and Data Collection for a Net Zero Steel Industry*, IEA, April 2023, <https://www.iea.org/reports/emissions-measurement-and-data-collection-for-a-net-zero-steel-industry>.
3. Samuel Kooijmans and Lucy Kessler, “Banks Bet on Green Steel,” RMI, December 16, 2022, <https://rmi.org/banks-bet-on-green-steel/>.
4. “HYBRIT®. A New Revolutionary Steelmaking Technology,” SSAB, 2023, [https://www.ssab.com/en/fossil-free-steel/insights/hybrit-a-new-revolutionary-steelmaking-technology?gad\\_source=1&gclid=Cj0KCQiAgqGrBhDtARIsAM5s0\\_m33G\\_Z3W9dXjD27FjT5ml6mPdz-OaGL\\_ZRg1xpSec2NnGY6ekKS7QaAuhXEALw\\_wcB](https://www.ssab.com/en/fossil-free-steel/insights/hybrit-a-new-revolutionary-steelmaking-technology?gad_source=1&gclid=Cj0KCQiAgqGrBhDtARIsAM5s0_m33G_Z3W9dXjD27FjT5ml6mPdz-OaGL_ZRg1xpSec2NnGY6ekKS7QaAuhXEALw_wcB).
5. *Tracking Clean Energy Progress 2023*, IEA, July 2023, <https://www.iea.org/reports/tracking-clean-energy-progress-2023>.
6. “The Green Deal Industrial Plan: Putting Europe’s Net-Zero Industry in the Lead,” European Commission, February 2023, [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/green-deal-industrial-plan\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/green-deal-industrial-plan_en).
7. *Inflation Reduction Act Summary: Energy and Climate Provisions*, Bipartisan Policy Center, 2022, [https://bipartisanpolicy.org/download/?file=/wp-content/uploads/2022/08/Energy-IRA-Brief\\_R04-9.26.22.pdf](https://bipartisanpolicy.org/download/?file=/wp-content/uploads/2022/08/Energy-IRA-Brief_R04-9.26.22.pdf).
8. “The Breakthrough Agenda: A Master Plan to Accelerate Decarbonization of Five Major Sectors,” Climate Champions, November 11, 2022, <https://climatechampions.unfccc.int/breakthrough-agenda/>.
9. Faustine Delasalle et al., *Making Net-Zero Steel Possible*, Mission Possible Partnership, September 2022, <https://missionpossiblepartnership.org/wp-content/uploads/2022/09/Making-Net-Zero-Steel-possible.pdf>.
10. *For a Strong Steel Industry in Germany and Europe: The Steel Action Concept*, Federal Ministry for Economic Affairs and Energy (BMWi), July 2020, [https://www.bmwk.de/Redaktion/EN/Publikationen/Wirtschaft/the-steel-action-concept.pdf?\\_\\_blob=publicationFile&v=1](https://www.bmwk.de/Redaktion/EN/Publikationen/Wirtschaft/the-steel-action-concept.pdf?__blob=publicationFile&v=1).

# Acknowledgments

Launched in 2022 with six founding signatories — Citi, Crédit Agricole CIB, ING, Société Générale, Standard Chartered, and UniCredit — the SSP were developed over 12 months by RMI and five working group banks, in consultation with over 80 institutions across finance, industry, and civil society, including 30 steelmakers and industry associations. Allen & Overy provided legal guidance.

## The Secretariat

RMI

**Estefania Marchan**, Principal

**Tom White**, Manager

**Sam Kooijmans**, Senior Associate

**Sabina Flandrick**, Associate

**Meriah Jamieson**, Communications Manager



The Sustainable STEEL Principles Association is an independent, unincorporated association managed by its Secretariat, RMI (founded as the Rocky Mountain Institute), a Colorado nonprofit corporation with its principal place of business at 2490 Junction Place, Suite 200, Boulder, CO 80301.

[steelprinciples.org](https://steelprinciples.org)