# Sustainable Debt Market Summary H1 2024

Climate Bonds Initiative

**August 2024**

## Key figures

- **By 30 June 2024, Climate Bonds had recorded a cumulative volume of USD5.1tn** in aligned green, social, sustainability, and sustainability-linked (SLBs) bonds, (collectively GSS+).
- **USD554bn of aligned GSS+ volume was captured in H1 2024,** a 7% year-on-year (YOY) increase compared to H1 2023.
- **Green bonds accounted for 70% of H1 aligned volume, reaching USD385.1bn.** This was followed by sustainability and social volume contributing USD93.9bn (17%) and USD70.5bn (13%) respectively.
- **January was the most prolific month for aligned GSS+ deals in H1.**
- **Europe was the source of USD291.1bn (53%)** of aligned GSS+ volume in H1.

## Scorecard: Aligned GSS+ debt

| | H1 2024 | | Cumulative since 2006 | |
|---|---|---|---|---|
| | USDbn | Aligned deal count | USDbn | Aligned deal count |
| Green | 385.1 | 1,628 | 3201.5 | 29,007 |
| Social | 70.5 | 1,646 | 906.0 | 12,685 |
| Sustainability | 93.9 | 571 | 896.2 | 5,057 |
| Sustainability-linked bonds | 4.6 | 14 | 52.9 | 124 |
| **Total** | **554.1** | **3,859** | **5056.6** | **46,873** |

## GSS+ bonds captured by Climate Bonds

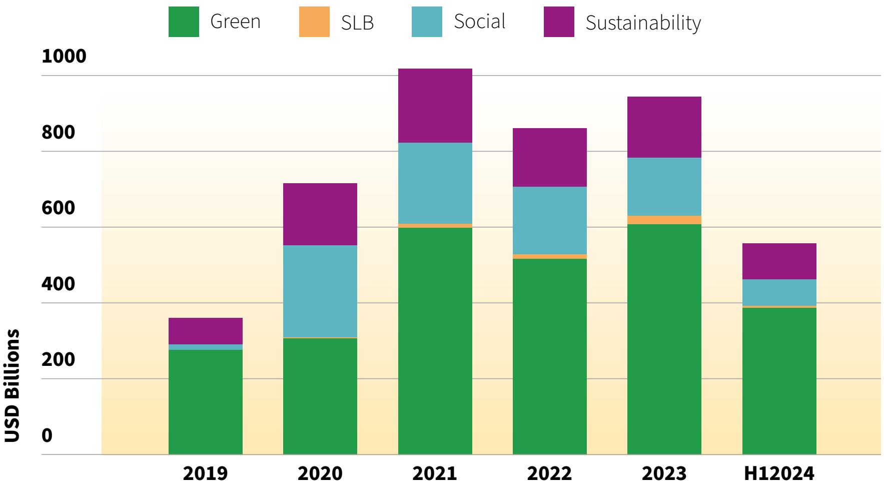
Bonds meeting the requirements outlined in Climate Bonds screening methodology qualify for inclusion in the datasets and are classified as **aligned**.

Labelled bonds for which there is not enough information to determine eligibility for database inclusion are classified as **pending** until sufficient disclosure is available to decide.

Bonds failing to meet the requirements of Climate Bonds screening methodology are classified as **non-aligned** and are excluded from the datasets.

| | Aligned | Pending | Non-aligned |
|---|---|---|---|
| Cumulative as of 30/6/2024 | USD5.1tn | USD26.4 | USD1.1tn |
| H1 | USD554.0bn | USD16.2 | USD93.2bn |
| Q2 | USD251.2bn | USD7.6 | USD46.7bn |

H1 2024 aligned GSS+ volume reached USD554bn




Source: Climate Bonds Initiative

## H1 at a glance

### GSS+ market thrives

Global interest rates remained higher than had initially been expected going into 2024. Global debt issuance climbed to USD13.2tn during this period, compared to USD9.8tn in H1 2023, an increase of 35%. Aligned GSS+ volume constituted 4.2% of the H1 2024 total, a decline from 5.3% seen in 2023.[1] Nevertheless, the GSS+ market is thriving, with new issuers entering the market at pace. By the end of H1 2024, aligned GSS+ volume had reached USD554bn, an increase of 7% on the prior year.

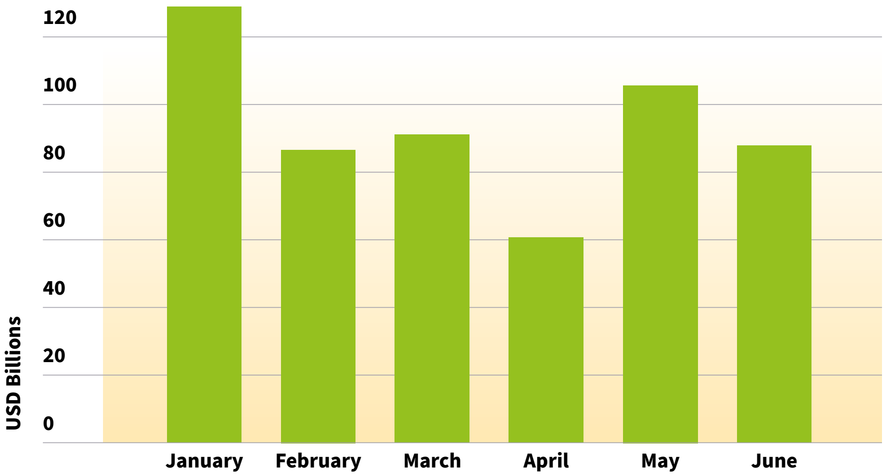
EUR was the dominant currency of aligned GSS+ issuance with 44% of H1 2024 volume (USD246bn), just under the 47% EUR market share seen in H1 2023. This was followed by USD, CNY, and GBP volumes of USD159bn, USD26bn and USD20bn, respectively. The Federal Republic of Germany was the largest single contributor to the EUR GSS+ aligned volume, pricing nine aligned GSS+ bonds totalling USD14bn in H1.

Europe was the largest source of H1 aligned GSS+ volume contributing USD291.1bn, an increase of 13% YOY. Africa produced the most aggressive YOY regional growth with USD6.6bn, an increase of 412% from USD1.3bn in H1 2023. Seven issuers from the region have priced aligned GSS+ deals in H1, led by **African Development Bank** (AfDB) responsible for a total of USD4.8bn in green, social, and sustainability deals across AUD, EUR, USD, and ZAR.

Volume from non-financial corporate issuers made the largest contribution among the issuer types, reaching USD145.1bn, a 47% increase compared to H1 2023. This included 35 aligned deals of at least USD1bn, the largest of which was a USD8bn green loan from USA low-carbon energy company, **Pattern Energy**.

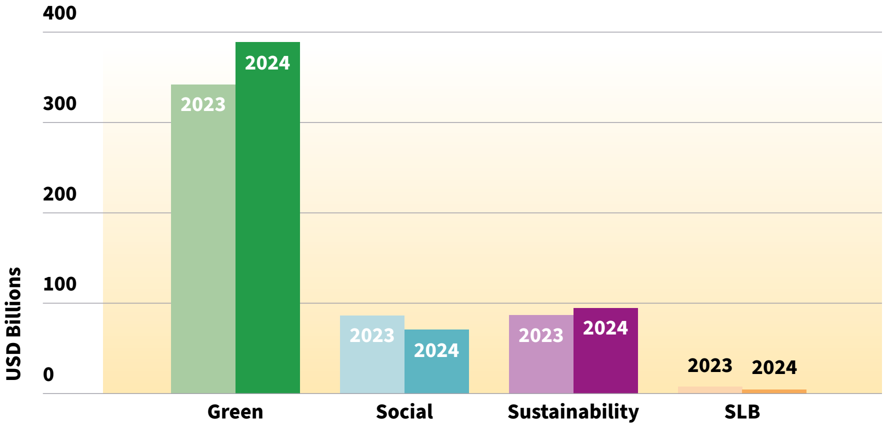
Sovereign issuance had a record first half in H1 2024 with 33 countries pricing a total volume of USD104bn aligned sovereign GSS+ volume, a 12% increase compared to the USD93bn captured for H1 2023. H1 2024 Sovereign GSS+ highlights include Australia's debut AUD7bn (USD4.6bn) 10-year, sovereign GSS+ issue and Iceland's EUR50mn (USD53m) social deal issued to support its strong position on gender equality.

January was the most prolific month for the aligned GSS+ issuance in H1 2024.




Source: Climate Bonds Initiative

Aligned GSS+ volumes recorded an increase of 7% in the H1 2024 compared to H1 2023




Source: Climate Bonds Initiative

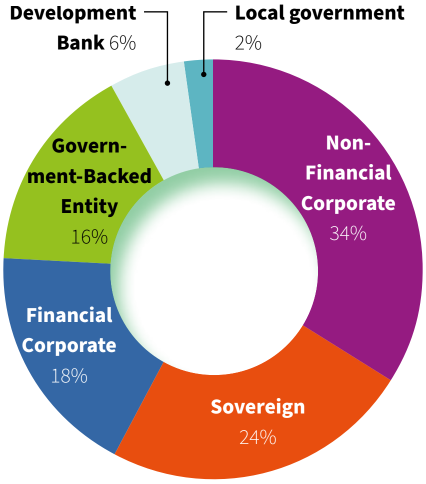
## Green

- By the end of H1 2024, cumulative aligned green bond volume had reached USD3.2tn.
- H1 2024 aligned green volume was recorded at USD385.1bn, up 14% compared to H1 2023.
- In Q2, USD180.8bn in aligned green bond volume was added.
- Europe was the largest source of aligned green volume (USD237bn) contributing 62%.
- Aligned green deals originated from 52 countries. The USA made the largest contribution of USD47.6bn in the first half of 2024 reflecting an increase of 57% compared to the same period from the prior year. The USA was followed by Germany and France with issuance volume of USD47.2bn and USD41.1bn, respectively. France's share of aligned green volume increased by 123% from the same period last year.

Largest aligned non-sovereign green issuers in H1 2024

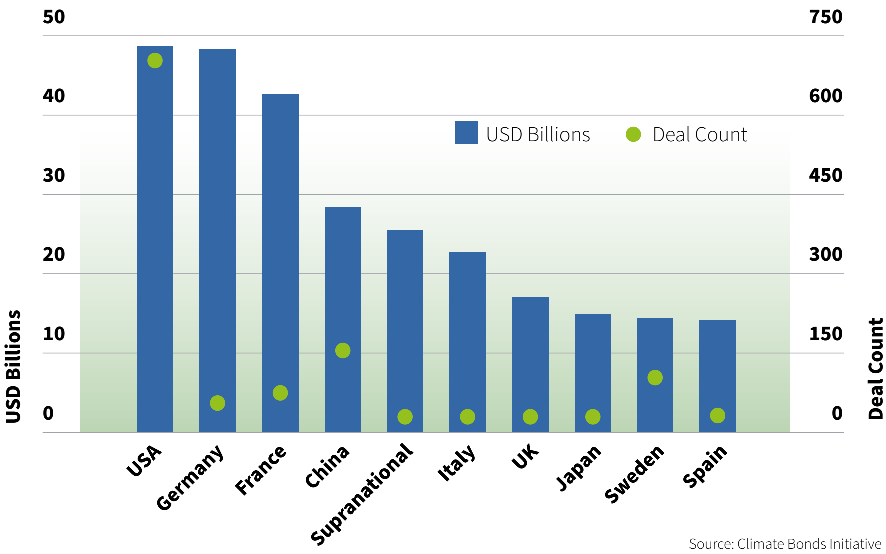
| Issuer Name | Volume USDbn | Deal Count | Country |
|---|---|---|---|
| **EU** | 12.2 | 3 | Supranational |
| **EDF** | 9.5 | 4 | France |
| **Pattern Energy** | 8.8 | 1 | USA |
| **KfW** | 7.8 | 5 | Germany |
| **EIB** | 6.9 | 3 | Supranational |
| **Northvolt** | 5.0 | 1 | Sweden |
| **Engie SA** | 4.1 | 1 | Chile |
| **RWE AG** | 3.8 | 4 | Germany |
| **Volkswagen** | 3.7 | 5 | Germany |
| **Stack Infrastructure** | 3.3 | 1 | USA |

## 34% of green deals were priced by non-financial corporates




Source: Climate Bonds Initiative

## The USA was the most prolific source of aligned green deals in H1 2024




Source: Climate Bonds Initiative

- Non-financial corporate issuers were responsible for 34% of the aligned green volume in H1, collectively contributing USD145.7bn.
- The European Union (EU) was the single largest issuer with USD12.2bn priced through one new deal maturing in 2050 (EUR7bn/USD7.6bn) and tapped two existing deals maturing in 2033 (EUR2.3bn/USD2.5bn) and 2043 (EUR2.0bn/USD2.2bn). The bonds will finance the green transition, energy efficiency, clean energy, climate change and adaptation, water waste management, clean transportation and infrastructure, and other enabling activities.[2] The EU is the second largest issuer of aligned GSS+ bonds after the World Bank (USD293bn). It has priced cumulative volume of EUR159bn (USD182bn) spread over five green bonds (EUR60.2bn/USD65.6bn) and 13 social bonds (EUR98.5bn/USD116.3bn).

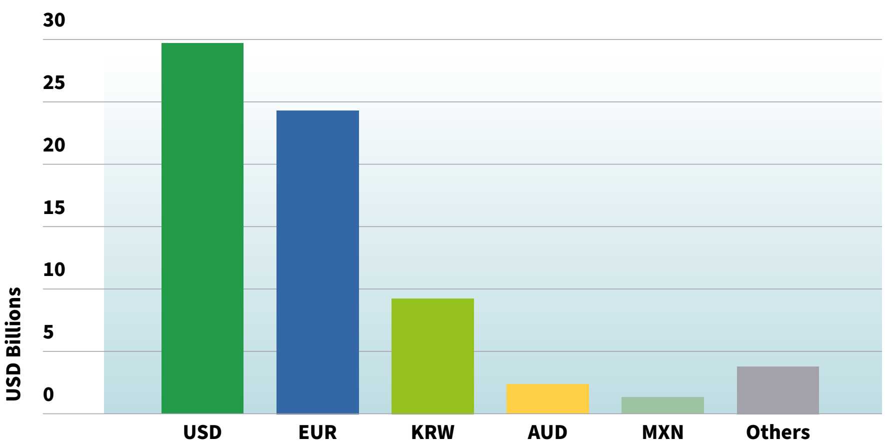
## Largest aligned non-sovereign social issuers in H1 2024

| Issuer Name | Volume USDbn | Deal Count | Country |
|---|---|---|---|
| **Caisse d'Amortissement de la Dette Sociale** | 12.6 | 3 | France |
| **Nederlandse Waterschapsbank NV** | 4.5 | 4 | Netherlands |
| **Korea Housing Finance Corporation** | 4.0 | 30 | South Korea |
| **BNG Bank NV** | 3.8 | 5 | Netherlands |
| **African Development Bank (AfDB)** | 3.1 | 3 | Supranational |
| **Council of Europe Development Bank** | 2.8 | 4 | Supranational |
| **Korea SMEs and Startups Agency** | 2.3 | 25 | South Korea |
| **Fannie Mae** | 2.0 | 140 | USA |
| **Freddie Mac** | 1.8 | 90 | USA |
| **Asian Development Bank (ADB)** | 1.7 | 4 | Supranational |

## Social

- By the end of H1 2024, cumulative aligned social bond volume had reached USD906.0bn.
- In H1 2024, 111 issuers priced aligned social volume of USD70.5bn, a decline of 21% compared to USD86.5bn recorded for H1 2023.
- In Q2, USD28.0bn in aligned social bond volume was added.
- Europe was the most prolific region for the aligned social bond volume in H1 2024 with a total of USD32.4bn, followed by Asia-Pacific and North America which added USD17.8bn and USD11.7bn, respectively.

## 95% of aligned social deals were priced in the top five currencies



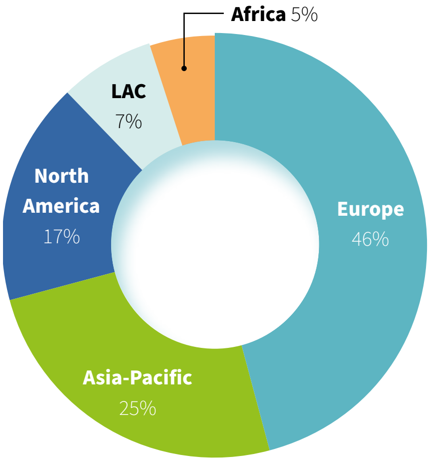

Source: Climate Bonds Initiative

- A total of 1646 social instruments originated from 28 countries in H1. Most (87%) originated from the USA, where 37 issuers priced 1438 deals with total volume of USD11.3bn, or USD7.8m each on average. Contributions ranged from USD2.0bn over 140 deals from Fannie Mae, to USD11.7m over four deals from Maricopa County Industrial Development Authority.
- Social bonds in H1 2024 were priced in 19 currencies with USD making the largest contribution (USD29.6bn), followed by EUR (USD24.2bn).
- Government-backed entities made a 56% contribution to aligned social bond volume adding USD39.2bn.
- French social security provider Caisse d'Amortissement de la Dette Sociale (CADES) issued the largest volume from three deals amounting to USD12.6bn. At the end of H1 2024, CADES was the third largest GSS+ issuer (following World Bank and the EU) having priced cumulative aligned volume of USD143.3bn.

## Sustainability

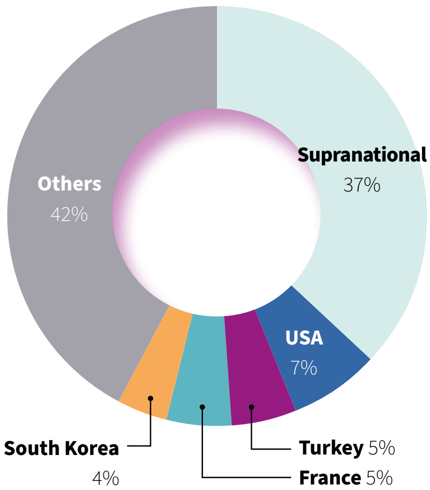
- By the end of H1 2024, cumulative aligned sustainability bond volume had reached USD896.2bn.
- H1 2024 aligned sustainability volume reached USD93.9bn, up 8% on the USD86.7bn recorded for H1 2023.
- In Q2, USD40.1bn in aligned sustainability bond volume was added, the same amount as Q2 2023.
- Supranationals (SNAT) dominated the aligned sustainability debt market with 37% of the volume, which was followed by Asia Pacific and Europe with 23% and 21% market share, respectively.
- Asia-Pacific recorded a 65% increase in aligned sustainability volume with 56 issuers pricing 92 deals.
- World Bank (IBRD) made the largest contribution with 34% of the total sustainability volume, the proceeds of which will be used to finance healthcare, education, food security, affordable finance, and used to provide financial and technical support for the generation of clean energy sources.[3]
- USD accounted for 55% of aligned sustainability volume in the first half of 2024. This was followed by EUR and GBP contributing volume of USD17.6bn and USD5.7bn, respectively.

### Europe priced almost half (46%) of the social aligned debt in H1 2024




Source: Climate Bonds Initiative

### Supranationals priced over one-third of aligned sustainability deals



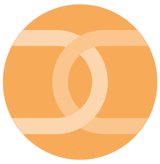

Source: Climate Bonds Initiative

### Largest aligned non-sovereign sustainability issuers in H1 2024

| Issuer Name | Volume USDbn | Deal Count | Country |
|---|---|---|---|
| **World Bank (IBRD)** | 28.0 | 91 | Supranational |
| **Wells Fargo Commercial Mortgage Trust 2024-SVEN** | 2.7 | 21 | USA |
| **EIB (European Investment Bank)** | 2.3 | 2 | Supranational |
| **AFD (Agence Française de Développement)** | 2.0 | 1 | France |
| **AL Rajhi Sukuk Ltd** | 2.0 | 2 | Saudi Arabia |
| **International Development Association** | 1.9 | 1 | Supranational |
| **Woori Bank** | 1.7 | 5 | South Korea |
| **South Australian Government Financing Authority** | 1.4 | 2 | Australia |
| **Ministeries Van de Vlaamse Gemeenschap** | 1.4 | 1 | Belgium |
| **Starwood Property Trust Inc.** | 1.2 | 2 | USA |

- Development banks made the largest contribution with volume of USD37.7bn followed by financial corporates (USD21.5bn), which leapt 140% YOY.
- Asociacion Civil Sumatoria Para Una Nueva Economia priced the first sustainability deal from a not-for-profit, with a USD933mn deal with proceeds earmarked for circular economy, clean energy and renewable energy, and food security.

## Sustainability-linked Bonds

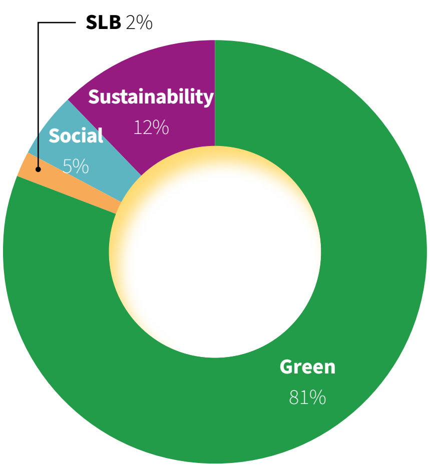


- By the end of H1 2024, cumulative aligned SLB volume had reached USD52.9bn.
- H1 2024 aligned SLB volume was USD4.6bn, a 45% decline compared to the USD8.2bn captured for H1 2023.
- In Q2, six aligned deals with total volume of USD1.5bn were added.
- SLBs originated from three regions in H1. The majority (71%) came from Europe (USD3.2bn) followed by Latin America and Caribbean (LAC) and Asia-Pacific with USD823m and USD511m, respectively.
- In H1 2024, the Netherlands was the largest country source of SLB volume, contributing USD1.1bn (25%) from two issuers.
- Of the 14 aligned SLBs recorded in H1, 13 came from issuers operating in the non-financial corporate sector. A EUR60m (USD64m) deal from Finnish private equity asset manager CapMan OYJ was the only deal from a financial corporate.
- French jewellery company Goldstory SAS was the largest aligned SLB issuer in H1, pricing two deals with combined volume of USD933m.

## Sovereign

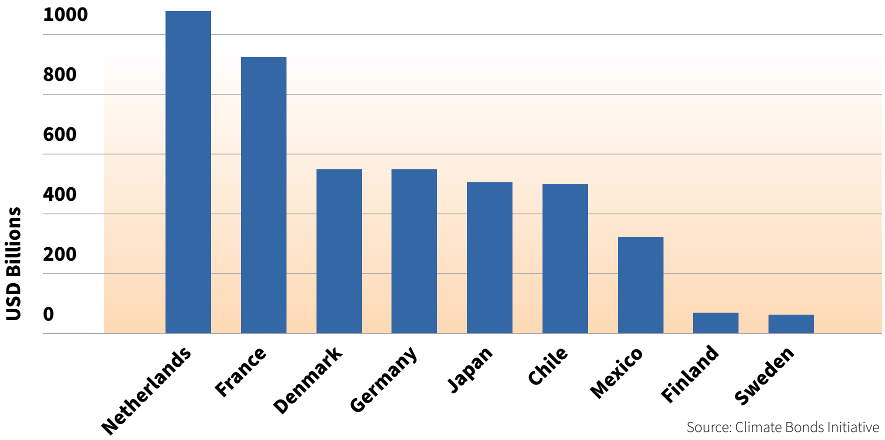
- By the end of H1 2024, cumulative aligned sovereign GSS+ volume had reached USD590.7bn, from 56 issuers.
- Green is the most popular theme, deployed by 36 issuers, and 80% (USD478.4bn) of cumulative aligned sovereign GSS+ volume.

### 81% of aligned sovereign GSS+ volume is green




Source: Climate Bonds Initiative

### The Netherlands issued a quarter of deals under the SLB theme

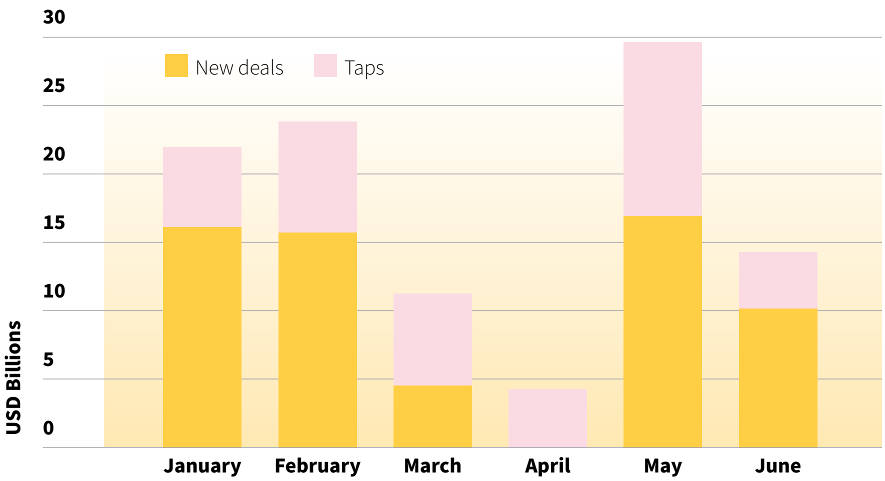



Source: Climate Bonds Initiative

### Largest aligned non-sovereign SLB issuers in H1 2024

| Issuer Name | Volume USDm | Deal Count | Country |
|---|---|---|---|
| **Goldstory SAS** | 922.3 | 2 | France |
| **Koninklijke Ahold Delhaize NV** | 762.7 | 1 | Netherlands |
| **TDC Net A/S** | 542.9 | 1 | Denmark |
| **TUI AG** | 542.6 | 1 | Germany |
| **Inversiones CMPC SA** | 500.0 | 1 | Chile |
| **Daiwa House Industry Co Ltd** | 387.8 | 1 | Japan |
| **PostNL NV** | 324.5 | 1 | Netherlands |
| **CEMEX SAB de CV** | 323.3 | 2 | Mexico |
| **Obayashi Corp** | 123.8 | 1 | Japan |
| **CapMan Oyj** | 64.9 | 1 | Finland |

### Aligned sovereign GSS+ volume of USD104bn was priced in H1 2024




Source: Climate Bonds Initiative

- In H1 2024, 33 countries added aligned sovereign GSS+ volume totalling USD104bn, a 12% increase compared to the USD93.0bn captured for H1 2023. This translates into a record half year for aligned sovereign GSS+ volumes and compares to total volume of USD158.8bn priced in the whole of 2023.
- In Q2, aligned sovereign GSS+ volume of USD47.6bn was added, split between USD27.4bn in new deals from 11 countries, and USD20.8 in taps from 12 countries.
- The first quarter is typically the most prolific for sovereign debt, including thematic, and in Q1 2024, aligned volume reached USD56.3bn, a record high.

## Aligned sovereign GSS+ volume priced in H1 2024

| New deals | Green USDm | Social USDm | Sustainability USDm | Total USDm |
|---|---|---|---|---|
| Japan | 10.6 | | | **10.6** |
| Italy | 9.7 | | | **9.7** |
| France | 8.7 | | | **8.7** |
| Australia | 4.7 | | | **4.7** |
| Austria | 4.0 | | | **4.0** |
| Germany | 3.2 | | | **3.2** |
| Canada | 2.9 | | | **2.9** |
| Mexico | | | 2.2 | **2.2** |
| Romania | 2.2 | | | **2.2** |
| Brazil | | | 2.0 | **2.0** |
| Singapore | 1.9 | | | **1.9** |
| Chile | | 1.7 | | **1.7** |
| Hungary | 1.6 | | | **1.6** |
| Serbia | | | 1.5 | **1.5** |
| Cote d'Ivoire | | | 1.1 | **1.1** |
| Philippines | | | 1.0 | **1.0** |
| Iceland | 0.8 | 0.1 | | **0.9** |
| China_HK | 0.8 | | | **0.8** |
| UAE | | | 0.8 | **0.8** |
| Uzbekistan | | | 0.7 | **0.7** |
| India | 0.6 | | | **0.6** |
| Indonesia | | | 0.2 | **0.2** |
| **Total new deals** | **51.7** | **1.8** | **9.3** | **62.8** |
| **Reopenings** | | | | |
| Germany | 10.8 | | | **10.8** |
| UK | 10.1 | | | **10.1** |
| Austria | 3.2 | | | **3.2** |
| France | 2.9 | | | **2.9** |
| Italy | 2.4 | | | **2.4** |
| Netherlands | 2.3 | | | **2.3** |
| Spain | 2.1 | | | **2.1** |
| Belgium | 1.7 | | | **1.7** |
| Colombia | | 1.3 | | **1.3** |
| New Zealand | 0.8 | | | **0.8** |
| Thailand | | | 0.7 | **0.7** |
| India | 0.6 | | | **0.6** |
| Denmark | 0.6 | | | **0.6** |
| Ireland | 0.6 | | | **0.6** |
| Indonesia | 0.5 | | | **0.5** |
| Switzerland | 0.2 | | | **0.2** |
| Mexico | | | 0.2 | **0.2** |
| Hungary | 0.1 | | | **0.1** |
| Peru | | | 0.1 | **0.1** |
| **Total reopenings** | **38.9** | **1.3** | **1.0** | **41.2** |
| **All sovereign GSS+** | **90.5** | **3.1** | **10.4** | **104.0** |

## Australia's first green bond obtained a greenium

Australia was the only debut issuer in Q2 2024, pricing its AUD7bn 2034 in early June. The deal attracted an order book of AUD22.9bn, covering the transaction size by more than three times. Climate Bonds determined that the deal priced inside its own yield curve obtaining a greenium, with strong interest from both domestic (65% allocation) and international investors. More than 100 institutional investors were allocated bonds, of which 15 were new to the Australian Office of Financial Management (AOFM) syndicated deals. The largest offshore allocations were to the UK (12%) and Europe (11%). The highest allocation by investor type was to fund managers (63%) which included asset managers, insurance, and pension funds. The successful transaction reflects a year of preparation by the AOFM and Australian Treasury and reflects the government's commitment to grow the Australian GSS+ market.

Australia is targeting net zero by 2050 and published its Green Bond Framework in December 2023.[4] Eligible project categories are listed as renewable energy, energy efficiency, clean transportation, low-carbon buildings, adaptation, water and wastewater, management of living natural resources, biodiversity, circular economy, and pollution prevention and control.

## Iceland uses social bonds to support its strong position on gender equality

Iceland priced a 3-year EUR50m (USD53m) social deal in June. Use of proceeds (UoP) were earmarked to support gender equality projects including women on low incomes, and a reduction in unpaid work such as caring. According to the Global Gender Gap index, Iceland is the most gender equal society, and has maintained its position for over a decade and a half.[5] Iceland published its Sovereign Sustainable Financing Framework in 2021, which identified seven green, four blue, and five social project categories (Climate Bonds evaluates blue bonds under the green theme).[6] It first came to the market with a EUR813m (USD845m) green bond in March, with proceeds earmarked for clean transportation, renewable energy, green buildings, land use, circular economy and waste management, ICT, and adaptation and resilience.

## Cumulative Climate Bonds Certified volume tops USD285bn.

By the end of H1 2024, bonds with cumulative volume of USD285bn had obtained Certification against the Climate Bonds Standard, which includes USD19bn of bonds priced in H1 2024. The Certification scheme is widely acknowledged to be the gold standard for assuring UoP credibility. Three of the deals that were Certified in H1 2024 are highlighted below.

### Milwaukee Metropolitan Sewerage District

The Milwaukee Metropolitan Sewerage District (MMSD) is a regional government agency that provides water reclamation and flood management services in 29 municipalities with a total population of about 1.1 million people.[7] One of the largest sewerage utilities in the USA, for almost a century MMSD has recycled residual microbes from the water cleaning process into Milogranite, a nitrogen fertiliser which it sells commercially.

The MMSD 2035 Vision is a plan to achieve a cleaner Lake Michigan through zero sewage overflows, zero basement sewage backups, and improved storm water management. MMSD also has an Urban Biodiversity Plan, a Sustainability Plan, an Energy Plan, and a Resilience Plan. MMSD has stated its ambition to reduce its carbon footprint by 90% from baseline conditions by 2035.

Since 2020, MMSD has achieved programmatic Climate Bonds Certification for bonds with a total volume of USD355.7bn which are Certified against Climate Bonds Water Criteria.[8] Kestrel Verifiers is the appointed third-party verifier. In May 2024, MMSD priced a USD90bn deal, spread over 20 tranches with a laddered maturity profile beginning with USD2.8bn maturing in 2025, and extending to USD6.9bn maturing in 2044.

### Banco Popular Dominicano

Banco Popular Dominicano (BPD) is the largest private bank in the Dominican Republic with retail and commercial presence. In 2019, BPD signed the United Nations Environment Programme Finance Initiative (UNEP FI), a partnership between the UN and the global banking system to align their work with sustainable objectives. BPD offers preferential loans to retail customers to support energy efficiency measures, and to both retail and commercial customers to support leasing or purchase of green vehicles, solar panels, and electric vehicle chargers. BPD priced its first green bond in May 2024, a DOP300m (USD5m) ten-year deal. BPD was the first financial entity to place a green bond through the Dominican Republic Stock Exchange and the deal obtained Climate Bonds Certification against its Solar and Wind Sector Criteria.  An independent assurance report was provided by Pacific Corporate Sustainability (PCS) in which the environmental objectives of BPD were stated as a reduction in $CO_2$ emissions and a reduction in fossil fuel consumption.

A second issuer from the Dominican Republic, EGE Haina, has priced two aligned deals. In 2021, it priced a USD20,000 deal followed by USD40,000 in 2022. Proceeds were earmarked for renewable energy.  The Dominican Republic priced its first sovereign deal at the end of H1 (but not soon enough to make it into the H1 dataset).

### FleetPartners

FleetPartners provides vehicle leasing, fleet management, heavy commercial vehicles, salary packaging, and novated leasing with operations across Australia and New Zealand. It published its Green Bond Financing Framework in January 2024, stating clean transportation as the eligible UoP category for its green asset-backed securities (ABS). Its first green ABS was priced in May 2024, an AUD75m (USD50m) deal with a 10-year maturity. FleetPartners obtained Climate Bonds Certification for the deal against Climate Bonds Low-Carbon Transport Criteria, with a verification report supplied by DNV.[9]

In H1 2024, a total of nine issuers obtained Climate Bonds Certification for green bonds with all or part of their UoP earmarked for low-carbon transport. Bonds certified against Climate Bonds Low-Carbon Transport Criteria automatically meet the green definitions for transport in the EU Taxonomy. Eligibility under these Criteria fall into two groups.

**1. Automatically eligible**

- Most fully electric, hydrogen, or other zero direct-emissions transport including private vehicles, passenger trains, urban subway/metro, trams, and their directly supporting infrastructure.
- Electric charging and hydrogen fuelling infrastructure.
- Public walking and bicycle infrastructure.

Several types of manufacturing facilities for components of the above.

**2. Thresholds and other considerations required (see table)**

- Zero direct-emissions (such as electric or hydrogen) freight rail, for which <25% of its freight uses fossil fuels.
- Hybrid private vehicles (not including lorries or trucks).
- Fossil-fuelled public transport such as buses and trains.
- Technology and infrastructure that allow for car sharing schemes, road charging systems, better utilisation of public transport, and other such systems.

| Year of issuance | 2020 | 2026 | 2030 | 2060 |
|---|---|---|---|---|
| **Passenger activity threshold (direct emissions g $CO_2e$ per p-km)** | 50 | 0 | 0 | 0 |
| **Freight activity threshold (direct emissions g $CO_2e$ per p-km)** | 25 | n/a | 21 | 18 |

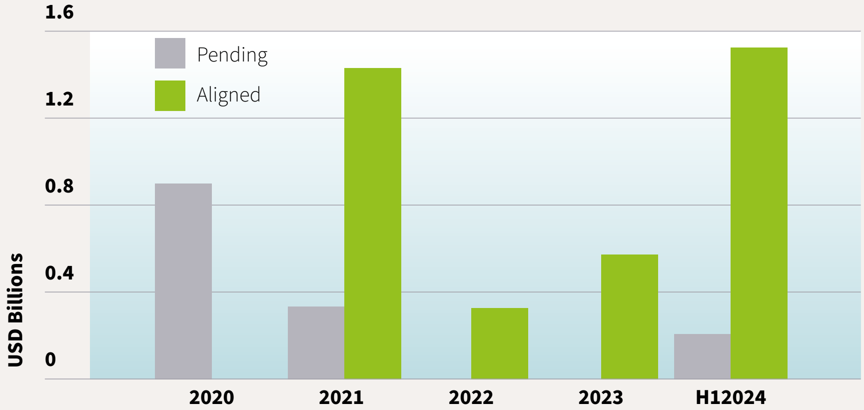
# Steel and Cement entities building a green future

To support the flow of investment towards decarbonising the hard-to-abate sectors, Climate Bonds has developed tools and guidance, including hard-to-abate sector criteria, transition plan guidance, and the inclusion of these activities as part of its Certification programme, as well as GSS, and SLB dataset assessment methodologies.

Climate Bonds is building a Transition Plan Monitor (TPM), which is an assessment of the quality of entity-level transition plans. Steel and cement were chosen as the first sectors to undergo analysis via the TPM.[10]

Climate Bonds' review of the steel and cement sectors has revealed two encouraging developments. Firstly, there has been an increase in aligned green bond volumes from steel and cement issuers and, secondly, most (57%) of the 21 companies assessed had credible transition plans in place.

## Aligned steel green bond issuance surges 166%




Source: Climate Bonds Initiative

## Secondary steel production received the largest UoP allocation in H1 2024


Source: Climate Bonds Initiative

## Increased aligned green bond volumes from steel and cement

### Steel

In H1 2024, Climate Bonds recorded aligned green bond volume from entities operating in the steel industry of USD1.5bn, up 166% from 2023 total issuance volume. This came exclusively from the Asia-Pacific region, with Chinese issuers contributing two-thirds of aligned volumes (64.1%), South Korea one-third (32.8%), and Taiwan (Province of China) 3.2%. The largest deal came from Korean steelmaker **POSCO**, which priced a USD500m deal financing a 2.5m ton/year electric arc furnace. The single largest issuer in this six-month period, however, was Chinese steelmaker **HBIS Group** (aka Hesteel, Hegang), which priced aligned deals with combined volume of USD626.9m, with UoP earmarked for secondary steel (scrap steel) purchasing.

Most of the UoP from steel bonds issued in H1 2024 was dedicated to the purchasing of secondary steel for use within electric arc furnaces (USD1.0bn), followed by financing for electric arc furnaces (USD0.5bn), with the remainder for renewable energy production. These activities are among the decarbonisation levers highlighted in Climate Bonds Steel Criteria as being critical for global steel production to reach net zero. [11]

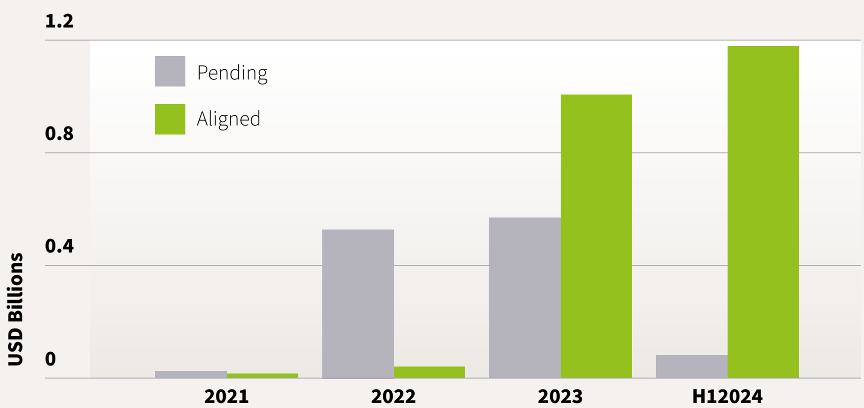
### Cement

Aligned green bond volumes with UoP allocated to cement related activities had exceeded 2023 full year (FY) issuance by the end of H1 2024. Deals from Heidelberg Materials and Anhui Conch Cement amounted to USD1.17bn, up 17.1% versus FY2023. In 2023, the single USD1bn green bond deal with UoP earmarked for cement came from **Cemex**. **Heidelberg**, first issued two SLBs in Jan and Nov 2023 each worth EUR750m (USD813.2m), respectively, and priced a green bond in June 2024. **Cemex** issued a green bond in March 2023, and a pair of SLBs worth MXN11.5bn (USD675m) in October 2023. This illustrates the combined use of green and SLB instrument formats to finance and demonstrate commitment to decarbonisation by issuers operating in hard-to-abate sectors.

The geographical representation of cumulative green bonds from cement issuers has been diverse with 21.1% of the volume from Asia Pacific, 33.9% from Europe, and 44.9% from LAC, amounting to USD2.2bn of aligned volume from ten countries.

In line with its Cement Criteria, Climate Bonds encourages past and future cement green bond issuers to disclose key related data, which streamlines the assessment process for both Climate Bonds and investors.[12] In particular, this should include disclosure on emission intensities of cement production facilities, and the thresholds for the use of alternative fuels, including waste-to-energy projects.

## Aligned cement green bond volume rises 17.1%




Source: Climate Bonds Initiative

## An assessment of transition plan ambition and credibility

Climate Bonds is developing a TPM, a dataset which tracks and assesses transition plans globally, on a sector-by-sector basis. For this analysis, transition plans published by all green bond issuing steel and cement companies (i.e., Climate Bonds Green Bond Dataset (GBDS) aligned and non-aligned green bond issuance) was assessed against the TPM methodology, in line with the categorisation structure proposed in Climate Bonds' Navigating Corporate Transitions report.[13]

The outcome of the analysis is the classification of transition plans into the following categories:

**1. No action** – the entity has yet to commit to net zero.

**2. Committed** – the entity has committed to net zero and has board oversight over the transition plan.

**3. Aligning** – the entity has met the criteria for Committed, and has targets aligning with a sector specific pathway, an action plan aligning with the Climate Bonds Sector Criteria, a financial plan, and emissions aligning with targets.

**4. Aligned** – the entity has strongly-aligned targets and an action plan, with a significant dedicated financial plan, and emissions that align with the pathway.

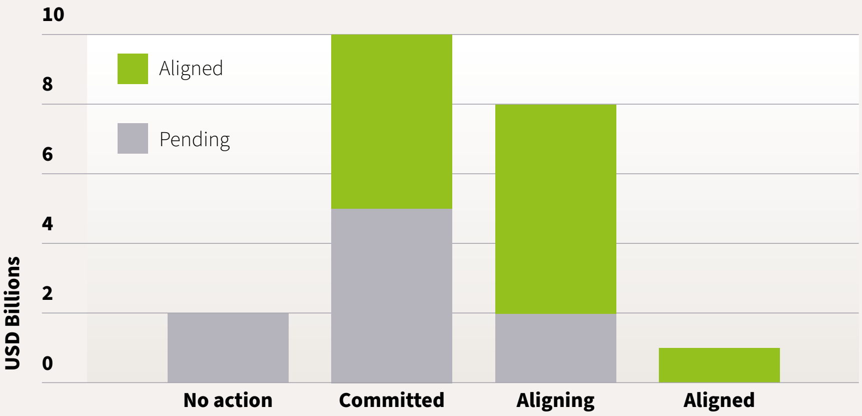
**5. Net Zero** – the entity's emissions are at net zero.

This categorisation is also partially relates to an entity's action plan, as follows:

| Action plan assessment category | Definition |
|---|---|
| **Fully aligned** | >95% of levers mentioned are aligned with the screening criteria |
| **Strongly aligned** | Levers all in line, with some (<30%) eligible not aligned or eligible pending disclosure |
| **Aligning** | Levers are all in line, with some (<50%) either eligible not aligned or eligible pending disclosure |
| **Not aligned** | Levers fall short of the above requirements |
| **n.a.** | No levers mentioned |

Further detail on the methodology for this dataset will be published later in 2024.

### Most steel and cement green bond issuers have a commitment to net zero, half have a credible transition plan




Source: Climate Bonds Initiative

## Key findings

**Of the 21 steel and cement entities that have issued a green bond, 19 have already made a commitment to achieving net zero**, of which nine have the key pieces of a credible transition plan and are categorised as TPM Aligning or Aligned.

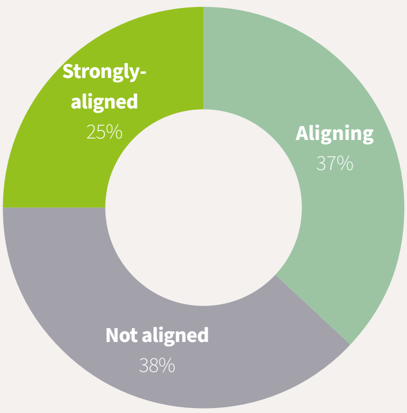
Of this same pool of issuers, while all GBDS aligned issuance comes from issuers who at least are Committed, as per the TPM methodology, there is a trend of GBDS aligned issuance coming from issuers with more detailed and credible transition plans. Of those classified as Committed, 50% have priced aligned green bonds, while three quarters of Aligning issuers have GBDS-aligned issuance.

The only issuer operating in either sector to have a TPM Aligned transition plan is Mexican cement producer **Cemex**, meeting the requirements across their targets, action plan, finance plan, and emissions performance to meet that category.

**Most (57%) steel and cement green bond issuers have aligned action plans**. The ambition and quality of strategies and levers defined and publicly disclosed as part of an entity's transition plan are varied. There are three state-backed or state-owned entities in steel which do not have the same reporting requirements as listed private companies, whereas almost none of the cement issuers are state-owned or backed.

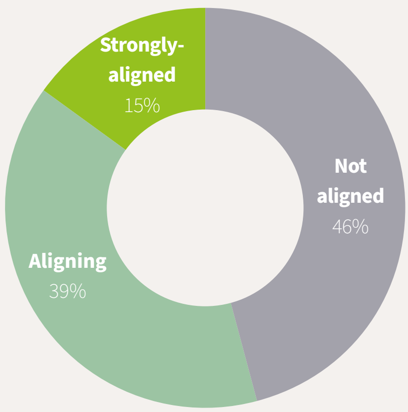
**It is extremely promising that most steel and cement issuers have prepared transition plans, and that entities are increasingly deploying green bonds to finance the required decarbonisation measures**. It is vital that entities operating in these hard-to-abate sectors develop transition plans to demonstrate their commitment and ambition to investors, and that those transition plans become the platform for engagement and support from investors, in turn facilitating fundraising via the sustainable debt markets.

### 62% of cement issuers have aligned action plans for decarbonisation




Source: Climate Bonds Initiative

### 54% of steel issuers have aligned action plans for decarbonisation




Source: Climate Bonds Initiative

# Spotlight: France's podium position

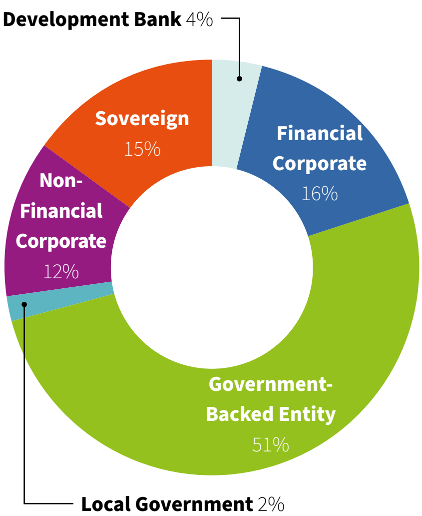
France has been on the vanguard of every development in sustainable finance and continues to innovate. In its Olympic year, France stands on the sustainable finance podium as a clear winner.

France hosted the 21st United Nations Conference of the Parties (COP21) in 2015, which led to the Paris Agreement, a legally binding international agreement to limit global warming to well below 2°C. Since then, France's strong sustainable finance policy has underpinned the immense growth of its GSS+ market, beginning with the energy transition law Article 173 in 2018, accompanied by the announcement of its intention to stop importing products linked to deforestation by 2030. Most recently, in December 2023, France ruled that funds operating under its socially responsible ISR label will, from the start of 2025, be barred from investing in any companies that launch new hydrocarbon exploration, exploitation or refining projects. France deserves a spot on the podium for its leadership in sustainable finance.

As of the end of H1 2024, the country was the third largest source of cumulative aligned GSS+ volume with USD542.9bn, following SNAT (USD763.2bn) and the USA (USD714.6bn). Green is the most popular label with 50% of aligned volume, social has 40%, while sustainability bonds contribute 8% and SLBs 2%.

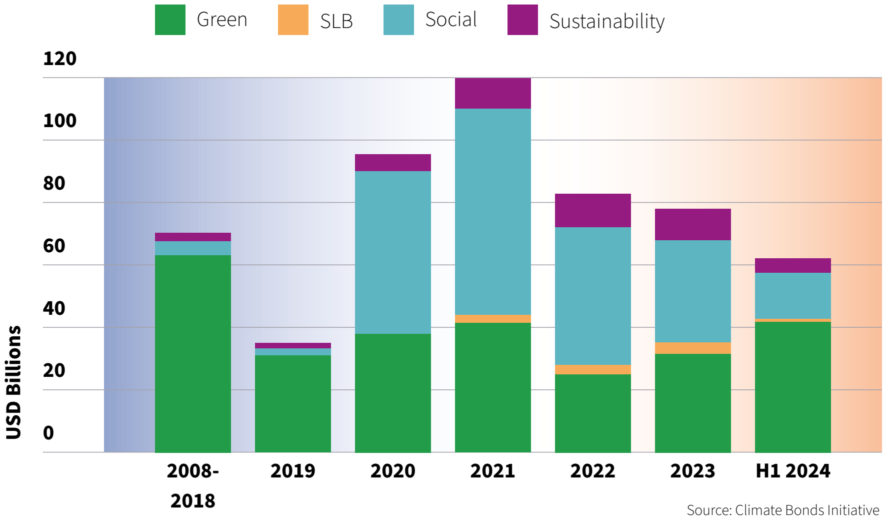
Following the first deal in 2008, aligned French GSS+ debt volume peaked in 2021 at USD120bn. If the pace of issuance evidenced in H1 2024 is replicated in the second half of the year, 2021's record could be broken

## More than half of cumulative aligned French volume comes from government -backed entities




Source: Climate Bonds Initiative

## French aligned GSS+ volume is on track for a record 2024




Source: Climate Bonds Initiative

France is the largest source of aligned social deals with USD216.2bn by the end of H1. This has been championed by its social security agency Caisse d'amortissement de la Dette Sociale (CADES), which at the end of H1 had priced over USD143.3bn in aligned social bonds, making it the largest issuer in that category. A further 22 French issuers have priced aligned social deals.

French GSS+ deals commenced in earnest in 2012 with three deals from local government entities Île-de-France, Provence-Alpes-Côte d'Azur, and Hauts-de-France (which had previously issued a sustainability bond in 2008) and one from French corporate Air Liquide.

In 2017, France became the first core sovereign borrower to issue a green bond. By the end of H1

## France's top three superlatives at the end of H1 2024

1. **Third largest source of aligned GSS+ volume (USD542.9bn)**
2. **Largest source of aligned social volume (USD216.2bn)**
3. **Largest source of aligned sovereign GSS+ volume (USD81.1bn)**

## Largest non-sovereign French issuers of cumulative aligned green bond volume

| Issuer | Issuer type | USD bn |
|---|---|---|
| **Societe des Grand Projects** | Government-backed entity | 29.0 |
| **EDF** | Government-backed entity | 20.3 |
| **Engie SA** | Non-financial corporate | 19.3 |
| **BNP Paribas SA** | Financial corporate | 8.7 |
| **Gecina** | Financial corporate | 8.1 |

## Largest French issuers of cumulative aligned sustainability bond volume

| Issuer | Issuer type | USDbn |
|---|---|---|
| **Agence Française de Développement (AFD)** | Government-backed entity | 16.3 |
| **Action Logement Services** | Government-backed entity | 8.1 |
| **Ile de France** | Local government | 5.6 |
| **Caisse des Depots et Consignations (CDC)** | Government-backed entity | 4.4 |
| **Ville de Paris** | Local government | 1.7 |

2024, French sovereign green bond volume had reached EUR72.6bn (USD81.1bn) spread over four deals. This enthusiasm for raising funds via sustainable finance instruments at the sovereign level has achieved what Climate Bonds has long believed to be one of the key benefits of issuing sovereign GSS+ instruments i.e., a messaging signal sent to corporates to deploy the GSS+ debt market. GSS+ volume originating from France increased from USD6.2bn in 2016 to US26.9bn in 2017 with the largest spike of 739% coming from non-financial corporate issuers.

## Paris 2024 environmental credentials

With such robust sustainable finance credentials, it is no surprise that France's environmental objectives for the 2024 Paris Olympics were groundbreaking. Paris 2024 has set new sustainability standards for global sporting events with the aim of reducing the environmental impact while maximising social and economic benefits. The organisers' intention was to deliver an event that was more 'responsible, sustainable, and inclusive'.[14]

The Paris 2024 Olympic Games are the first to be fully aligned with the Olympic Agenda 2020, which is the International Olympic Committee's (IOC) strategic roadmap to encourage the games to be more sustainable, cost-effective, and aligned with the needs of host cities and communities.[15] The Olympic Agenda 2020 made several recommendations, including the use of existing and temporary venues, reducing carbon emissions, and promoting sustainable energy sources.

### Emissions reduction

The organisers set clear environmental goals including an emissions reduction target of 50% versus the London and Rio games, supported by the decision to deploy existing and temporary venues thereby minimising new construction and the associated emissions. New venues that have been constructed are in response to local demand and will serve a viable purpose long after the 2024 Olympics. For example, the aquatics centre and the Paris 2024 Olympic village have been built in the north-eastern suburbs of Paris, where some of the city's most under-invested neighbourhoods are located.

### Energy

Paris 2024 will rely fully on renewable energy which will be locally sourced. All games venues are connected to the grid, enabling them to use renewable energy, significantly reducing the carbon footprint. Solar panels have been installed on the aquatics centre and the Olympic village to harness solar energy.

### Largest French issuers of cumulative aligned social bond volume

| Issuer | Issuer type | USDbn |
|---|---|---|
| **Caisse d'Amortissement de la Dette Sociale (CADES)** | Government-backed entity | 143.3 |
| **UNEDIC** | Government-backed entity | 39.3 |
| **BPCE SA** | Financial corporate | 6.0 |
| **Caisse Francaise de Financement Local (Caffil)** | Government-backed entity | 3.6 |
| **Credit Agricole SA** | Financial corporate | 3.6 |

### Largest French issuers of cumulative aligned SLB volume

| Issuer | Issuer type | USDbn |
|---|---|---|
| **Valeo SE** | Non-financial corporate | 1.9 |
| **L'Oreal SA** | Non-financial corporate | 1.4 |
| **Air France-KLM** | Non-financial corporate | 1.1 |
| **Atos SE** | Non-financial corporate | 0.9 |
| **Goldstory SAS** | Non-financial corporate | 0.9 |

Geothermal cooling systems are being used at the Olympic village and the heat generated by the Equinix PA10 data centre is being used to heat the Olympic aquatic centre.[16]

### Food

The games will encourage sustainable food practices by increasing the amount of plant-based food offerings, reducing the amount of single-use plastic, and ensuring access to free drinking water points for all attendees. Noting the importance of increasing the availability of non-animal protein sources, Climate Bonds is developing Sector Criteria to determine appropriate UoP for bonds supporting alternative proteins.

### Transport

As the host city of the 2024 Olympics, the Paris public transport system will be put to the test when 15 million spectators and 10,500 athletes vastly increase the number of daily passengers.[17] All Paris 2024 venues are accessible by public transport and 80% of event venues are within 10km of the Olympic village. A 37% reduction in the Olympic fleet compared to previous games has been targeted and the use of electric, hybrid, and hydrogen-powered vehicles has been widely promoted.

### Circular economy

Ahead of the games a second life for over 90% of the equipment and goods involved had been secured.[18]

## Olympic fundraising efforts

In July 2024, the opening ceremony of the Paris Olympics was a spectacular event, matching France's efforts in the sustainable finance market. The sponsors and partners of the event have leveraged the GSS+ bond market to support their contribution to a sustainable 2024 Olympics. Additionally, reflecting the impact of the enormous increase in visitors to the city attending the Olympics, issuers from the transport sector were active in the GSS+ bond market in H1 2024.

### Société des Grands Projets

**Instrument:**
25-year, EUR1bn (USD1.1bn) green bond.

**Use of proceeds:**
Low-carbon transport.

In February 2024, the Société des Grands Projets (formerly Société du Grand Paris) priced a EUR1bn, 25-year green bond dedicated to the financing of the Grand Paris Express, a 200-km rapid passenger transport project built within the Paris region (Île-de-France) that comprises an extension to the existing lines and construction of new lines for the Paris Metro. The extension of Line 14, one of the many metro lines, was finished by June 2024 ahead of the Paris Olympics. Upon the project's full completion by 2030, the Grand Paris Express will considerably extend the existing metro system and is expected to serve up to three million passengers a day.

The Société des Grands Projets was the world's first issuer to adopt a EUR medium-term note

(EMTN) programme that issues only green bonds.[19] The issuer adheres to the highest green bond standards with all its bonds certified against the Climate Bonds Standard under the Low-Carbon Transport Criteria. Rolling stock that run on the planned infrastructure will be fully electrified, exceeding Climate Bonds' requirement of tailpipe emissions up to 50g$CO_2$e/p-km until the end of 2025 for land-based passenger transport vehicles.[20] Furthermore, projects financed by the latest transaction also comply with both the substantial contribution criteria (SCC) and do no significant harm (DNSH) components of the EU Taxonomy's technical screening criteria (TSC).[21]

Société des Grands Projets priced its first green bond in 2018 and at the end of H1 2024 had issued aligned GSS+ volume of EUR27.2bn (USD30.8bn). The maturity profile of its debt is long dated, extending to 2070.

### Régie autonome des transports Parisiens (RATP)

**Instrument:**
10-year, EUR500m (USD530m) green bond.

**Use of proceeds:**
Low-carbon transport.

RATP is a government-backed entity that operates the Parisien public transport systems including the metro. RATP came to the GSS+ market in April with a EUR500m (USD530m) green bond. This is the first green bond issued by the entity in almost five years. At the end of H1 2024, RATP had priced three green bonds amounting to an aligned green bond volume of EUR1.5bn (USD1.7bn).

The proceeds of the most recent issue are earmarked to fund metro line upgrades, renovation of a railway maintenance centre, and maintenance works on railway tracks of metro and regional express rail networks. RATP has also confirmed that the targeted green projects are aligned with the SCC component of the EU Taxonomy's TSC as they are dedicated to zero-emissions passenger transport vehicles.[22]

### Société Nationale des Chemins de Fer Français (SNCF) - supplier and supporter of the Paris Olympics 2024

**Instrument:**
10-year, EUR1bn (USD1.1bn) green bond.

**Use of proceeds:**
Low-carbon transport.

Looking beyond Paris, SNCF, France's state-owned railway operator has been a regular issuer of Certified Climate Bonds since 2016. At the end of H1 2024, its Climate Bonds Certified green bond volume had reached EUR12.8bn (USD13.5bn), including seven issues (both new bonds and reopenings) totalling USD1.5bn in H1 2024, the largest of which was an EUR1bn (USD1.1bn) deal priced in March 2024. The UoP are verified against Climate Bonds Low-Carbon Transport Sector Criteria and are earmarked for high-speed electric rolling stock and associated railway infrastructure.

According to the European Environment Agency (EEA), transport accounts for a quarter of the EU's GHG emissions.[23] Scaling public passenger transport with low or no tailpipe emissions and the direct supporting infrastructure should be the focus of decarbonisation efforts, for which there is clear investor appetite to support.

### Île-de-France Mobilités - official partner of the Paris 2024 Olympics

**Instrument:**
25-year, EUR1bn (USD1.1bn) green bond.

**Use of proceeds:**
Low-carbon transport.

Île-de-France, a local government entity dedicated to looking after the Paris region and the most populous in France, together with Île-de-France Mobilités, the public transport authority responsible for organising public transport in the Île-de-France region, are both intrinsic to the smooth running of the 2024 Olympics ensuring that the needs of all involved are catered for and ease of movement around the French capital. In H1 2024, they priced aligned GSS+ deals with combined volume of USD1.96bn. Île-de-France Mobilités has around EUR2.5bn of projects eligible for green bond financing annually and intends to raise EUR1-1.5bn from green bonds each year, with the balance of its borrowing through private placements, bank finance, and EIB funding. The use of proceeds for its GSS+ bonds include renovation and renewal of surface and rail public transport rolling stock, infrastructure enabling low-carbon public transport, and improving the mobility quality of service.

Since 2012, Île-de-France Mobilités and Île-de-France have issued 22 green and sustainability labelled aligned GSS+ bonds amounting to USD13.5bn, 12 of which were issued by Île-de-France and ten by Île-de-France Mobilités. The Île-de-France region surrounds the nation's capital and is committed to covering its financing needs via green and sustainable bonds. Currently, 85% of the region's debt derives from green funding this should account for all its debt by 2027/28.

Île-de-France Mobilités designs, organises, and finances transport for everyone in the Île-de-France region, so its status as official partner of the Paris 2024 Olympics came as no surprise. Île-de-France Mobilités is committed to promoting the most environmentally friendly travel solutions, with the aim of improving the region's air quality and the health of its residents.[24]

### Group BPCE – a premium partner of the Paris Olympics 2024

**Instrument:** BPCE SFH SA – 10-year, EUR1.5bn (USD1.6bn) green bond; BPCE SA – 12-year, EUR500m (USD542.6m)social bond.

**Green use of proceeds:** Renewable energy, green buildings, sustainable agriculture, low-carbon transport.

**Social use of proceeds:** Social housing, local economic development, healthcare, sport economy, and education.

Groupe BPCE is the second largest banking group in France. BPCE SA and BPCE SFH SA both issued GSS+ bonds in H1 2024, one green and one social together totalling USD2.1bn. BPCE SA, together with BPCE SFH SA and BPCE Home Loans, has issued 19 aligned GSS+ bonds, nine of which are labelled green and ten of which are labelled social, with a combined volume of USD16.2bn.

In its capacity as a premium partner of the Paris Olympics 2024, Groupe BPCE and its group companies play a central role at the heart of the sports economy which aligns well with the UoP on its recent social deal. Within its social funding framework, Groupe BPCE states that it is committed to the sport economy and prides itself on being a premium partner of the Paris 2024 Olympics recognising 'the growing contribution of sport to the realisation of development and peace in its promotion of tolerance and respect and the contributions it makes to the empowerment of women, youth, and communities as well as to individuals through health and well-being, education, and social inclusion and cohesion.'[25]

BPCE has identified an opportunity to support the Paris Olympics 2024 via raising funds in the GSS+ market but also the potential to reach beyond the 2024 Olympics, ensuring that the facilities funded will be accessible to the general public after the event, and reinforcing the beneficial potential and impact of the GSS+ market.

### Air Liquide – supplier and supporter of the Paris Olympics 2024

**Instrument:** 10-year, EUR500m (USD540m) green bond.

**Use of proceeds:** Low-carbon hydrogen, carbon capture, and low-carbon air gases.

As noted above, Air Liquide was one of the first issuers to price a GSS+ deal, and more specifically the first

French corporate, issuing its first social bond in 2012. Since 2012, Air Liquide has issued two aligned GSS+ bonds, one green and one social bond, together totalling USD1.2bn. Air Liquide is a world leader in gases, technologies, and services for industry and health. Air Liquide's most recent green bond, which priced in May 2024, is in keeping with its ambition to combine growth and sustainable development.

Air Liquide is the official hydrogen supporter of Paris 2024. 'In line with the environmental ambition of the event, Air Liquide and the organising committee for the Paris 2024 Olympic and Paralympic games have extended their agreement on hydrogen fuelling for the event to also cover the needs associated with the electro-hydrogen generators that are installed at the Versailles and Saint-Quentin-en-Yvelines competition venues. As with the vehicles in the official fleet, the hydrogen supplied will be of renewable origin, i.e., produced from water electrolysis or biomethane with guarantees of origin.'[26] It was estimated that over the summer months more than 22 tonnes of hydrogen would be supplied to the Paris stations.

## France leads on sustainable finance policy

The lighting of Paris 2024's Olympic cauldron reflected on both France's past and future for innovation. Its shape was a reminder of the hot air balloon invented by the French Montgolfier brothers and its flame a new technique based on electricity, LED lights, and water vapour, developed in collaboration with Electricite de France (EDF).[27] An Olympic flame without fossil fuel combustion reflects the country's broader green agenda which has been underpinned by strong sustainable finance policies. Climate Bonds highlights three examples:

**1. Renewable energy push.** The flying flame synthesises France's objective to rapidly increase the share of renewable energy in its energy mix through ambitious multi-annual policy planning combined with high industrial policy investment. France's existing energy mix already has a low-carbon intensity due to its extensive nuclear fleet, but France is planning to further increase its energy production from renewables.[28] This relies on a combination of robust policy planning and investment planning through its France 2030 national investment plan (from ten objectives, four focus on decarbonisation of industry and transport).[29]

France has been mobilising its fiscal capacity to put the means behind its policy objectives. France's share of industrial policy-related expenditure is higher than the OECD's industrial strategy benchmark. It is also focused on two sectors: energy (spending at 0.37% GDP, with a focus on supporting strong demand of renewable energy, through purchase contracts) and manufacturing (spending at 0.27% GDP, with a focus on supporting electricity-intensive manufacturing to electricity purchasing support).[30] In addition, a significant proportion of industrial policy expenditure is dedicated to supporting the development of micro-, small and medium enterprises (MSMEs). This is done through BPI France, whose mandate has been adapted to reflect the transition to net zero, and is financing activities via a green bond programme as a key instrument of the transition.[31,32]

### Electricite de France

EDF has deployed the green bond market since 2013, when it priced an EUR1.4bn (USD1.9bn) 8-year deal with UoP earmarked to support renewable energy assets in wind, solar, and biogas. By the end of H1 2024, it had issued cumulative aligned green bond volume of USD20.3bn in a mixture of CHF, EUR, JPY and USD, plus a EUR1.3bn (USD1.5bn) social deal priced in 2021. EDF was the second largest source of non-sovereign aligned green volume in H1 2024, with three bonds amounting to EUR3.0bn (USD3.2bn) with proceeds earmarked to support a variety of low carbon energy initiatives, and a EU10 R5.8bn (USD6.8bn) green loan to finance nuclear energy.

**2. Climate transparency of fiscal expenditures.** In 2020, France was the first government to establish green budget tagging practices, under a 2019 legal framework, with a cross-ministerial effort on reporting and using a methodology aligned with the EU Taxonomy.[33] The reports provide detailed information on the impact of French fiscal expenditure. A high-level summary provides a breakdown of expenditures according to three categories:

1. Favourable to the environment (EUR33.9bn in 2023).

2. Neutral impact on the environment (EUR2.3bn).

3. Unfavourable to the environment (EUR19.6bn in 2023).[34]

In addition, all details and methodologies are publicly available on a dedicated web portal.[35]

Green budget-tagging demonstrates a commitment to climate transparency, embeds environmental awareness across government, and identifies expenditures for sovereign green bond programmes. This transparency also provides a model to French business. France was the first country to introduce mandatory climate-related disclosures in 2015, and in 2021 extended these requirements to include biodiversity.[36]

**3. Central bank focus.** It takes a dream team to aim for green, and Banque de France (BdF) has been a central player for Team France. As a founding member of the Network for Greening the Financial System (NGFS), the BdF has a taken a proactive approach to understanding its mandate in the light of the transition and a rapidly changing economy. Its actions range from ambitious climate stress-testing to the alignment of its proprietary, non-monetary, portfolios with a 1.5°C target and the exclusion of fossil fuel.[37] Accordingly, BdF is on top of the podium of the 2022 Green Central Banking Scorecard.[38]

While central banks are independent from government, they are key policymakers in transition. As part of a broader landscape of changemakers, central banks and regulators have an opportunity to promote sustainability and ensure credibility and soundness of sustainable finance markets and investments. In doing so, central banks play an incredibly important role in tilting the playing field towards green.

The Banque de France has been pivotal in progressing the thinking of the role of central banks in transition and continues to do so, among others by being a proactive member of the Eurosystem and progressing its research work. Some of the BdF's latest research provides helpful clarification on topics such as double materiality, exploring rationales for double materiality and how each one has potential implications for monetary and financial policies, as well as possible theoretical and practical challenges.[39] This a further example of BdF pushing for more and smarter thinking by central banks on the transition.

## Endnotes


1. Total market numbers from Bloomberg. Total deals with a tenor of at least one year on issue date.
2. European union green bond UoP: https://ec.europa.eu/commission/presscorner/detail/en/IP_22_2271
3. World bank Sustainability framework: https://thedocs.worldbank.org/en/doc/43b360bfda1e6e5b8a094ef2ce4dff2a-0340012021/original/World-Bank-IBRD-Sustainable-Development-Bond-Framework.pdf
4. Green Bond Framework, Australian Government December 2023, Green Bond Framework (aofm.gov.au)
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6. Sovereign Sustainable Financing Framework, Government of Iceland 2021, Iceland's Sovereign Sustainable Financing Framework (stjornarradid.is)
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9. Low Carbon Transport Criteria, Climate Bonds Initiative, 2020, Low Carbon Transport | Climate Bonds Initiative
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