Federated Hermes SDG Engagement High Yield Credit

Annual Report 2020
April 2021

Federated Hermes
International

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SDG Engagement High Yield Credit: 2020 highlights

353 **engagement actions** were carried out at **114** **companies**

Driven by our **2** **dedicated fixed income engagers** and

23 **stewardship professionals in EOS at Federated Hermes (EOS)**

Our holistic approach is based on **our pioneering engagement model** and **planning process** developed by EOS over decades

In 2020, we made progress on…

59%
of **74 environmental** objectives

65%
of **48 strategy, risk and communication** objectives

38%
of **24 governance** objectives

68%
of **19 social and ethical** objectives

The most intensively engaged Sustainable Development Goals (SDGs) were:

13 CLIMATE ACTION – **207 engagements**

5 GENDER EQUALITY – **65 engagements**

12 RESPONSIBLE CONSUMPTION AND PRODUCTION – **167 engagements**

8 DECENT WORK AND ECONOMIC GROWTH – **58 engagements**

7 AFFORDABLE AND CLEAN ENERGY – **108 engagements**

Our dialogues with companies featured a **holistic mix of ESG themes.** Intensive engagements included:

Climate change: **184** engagements

Business strategy: **83** engagements

Risk management: **83** engagements

Board diversity, skills and experience: **64** engagements

Integrated reporting and disclosures: **49** engagements

Human capital management and diversity: **35** engagements

Almost **10%** **of our engagements** included **chairs or CEOs**

> **Our foundational objectives are to deliver strong financial performance alongside positive social and environmental impacts that contribute to achieving the 17 SDGs.**

> **A wide range of companies in our Strategy have the potential to benefit society and the natural environment – their key challenge is in the progressive development of clean, future-resilient and more equitable next-generation industries and value chains.**

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SECTION 1

2020 Investment Review

The SDG Engagement High Yield Credit Strategy (SDGHY) is governed by two self-reinforcing investment objectives: one financial, and one sustainable. We seek to deliver superior risk-adjusted financial returns in excess of the Strategy's benchmark. At the same time, our financial stake provides a fundamental basis for engaging with portfolio companies on delivering positive returns to society. Our hypotheses for future positive societal impact are informed by the United Nations Sustainable Development Goals (UN SDGs).

Our performance, one year on

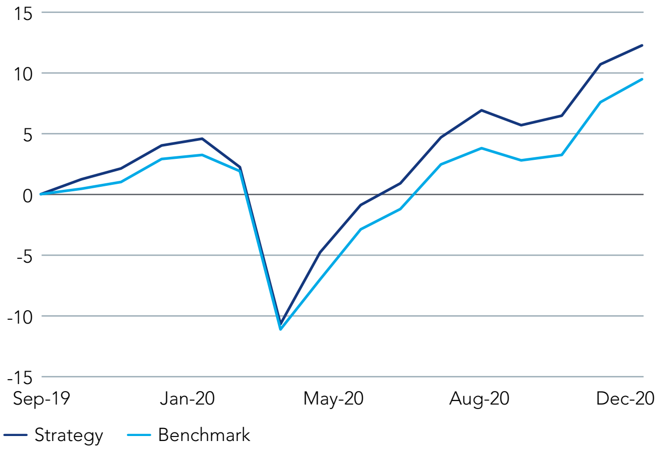
Mitch Reznick, CFA
Head of Credit Research and Sustainable Fixed Income

Fraser Lundie, CFA
Head of Credit

Nachu Chockalingam, CFA
Senior Portfolio Manager

In 2020, our Strategy returned 7.93% in USD terms, gross of fees, which was 136bps ahead of the benchmark index for the period. The outperformance of the Strategy during this period can be attributed to our overweight position in sectors that performed well, including Banking, Basic Materials, Capital Goods (Packaging) and Utilities. Our underweight positions in underperforming sectors, such as Energy, Media and Technology, also supported performance. The higher-quality bias of our portfolio proved advantageous as quality credit meaningfully outperformed CCC-rated credit, while the avoidance of defaults or distressed sales were also positive sources of performance. Conversely, our underweight positions in Real Estate, Leisure and Transportation as well as our overweight in Automotives detracted from our performance.

Figure 1. The SDG Engagement High Yield Strategy outperformed the benchmark in 2020



Rolling year performance (%)

	31/12/19 to 31/12/20	31/12/18 to 31/12/19	31/12/17 to 31/12/18	31/12/16 to 31/12/17	31/12/15 to 31/12/16
SDG Engagement HY Credit Strategy	7.94	–	–	–	–

Source: Federated Hermes as at 31 December 2020. Performance shown is the Federated Hermes Int'l SDG Engagement High Yield Credit Hedged to USD Strategy. In USD, gross of fees. Inception date: 30 September 2019. Benchmark: ICE BofAML Global High Yield Constrained Index hedged to USD. Data is supplemental to the GIPS® report that can be found in the Appendix. **Past performance is not a reliable indicator of future returns.**

It is worth pausing for a moment to place this financial performance in the context of exactly what kind of year 2020 was. Comparing credit spreads on 31 December 2019 and 31 December 2020, you would be forgiven for thinking not much had happened. But that 'balance sheet' snapshot doesn't tell the whole story. To understand what really happened, we need to examine the flow of spreads during the year. During 2020, spreads widened almost 750bps between the tights of 352bps in January, to the wides of nearly 1,100bps just two months later. By the end of the year, spreads had rallied tighter by nearly 700bps, bringing the index almost back to where it had started the year at 375bps.

Important information:
Past performance is not a reliable indicator of future results. Targets cannot be guaranteed. The value of investments and income from them may go down as well as up, and you may not get back the original amount invested. The holdings discussed in this report do not represent all of the securities held in the portfolio and it should not be assumed that the above securities were or will be profitable. This information does not constitute a solicitation or offer to any person to buy or sell any related securities or financial instruments.

Figure 2. Global high yield spreads are only mildly wider than at the start of 2020

— ICE BofA Global High Yield Constrained Index (option-adjusted spreads)
Source: ICE Bond Indices, as at 31 December 2020.

Coinciding with this dramatic spread widening was a record number of fallen angels in the US at some $200bn, and credit downgrades, leading to a 0.07 upgrade-to-downgrade ratio in the second quarter of 2020 alone. Although default rates spiked in the US to around 8.4% they remained confined to certain sectors and muted in Europe[1]. As for detailed market commentary on the market dynamics during this exceptional year, we will keep the ink in the bottle. However, suffice to say that pandemic-induced fear soon gave way to greed when it became clear that central banks and governments would spare no effort to restore confidence in the global economy.

Turning to our ambitions regarding the impact potential of the portfolio, both credit analysts and our engagement team had an intense but fruitful inaugural year. As well as providing crucial portfolio-positioning insight, the team supporting the Strategy drove over 350 engagement actions in 2020 (as detailed in Section 2). They engaged with many companies across all sectors for the first time, including basic materials companies such as Alcoa and Sappi, packaging manufacturers such as Ball Corporation and Sealed Air, and emerging market telecommunications providers Millicom, VEON and VTR Chile.

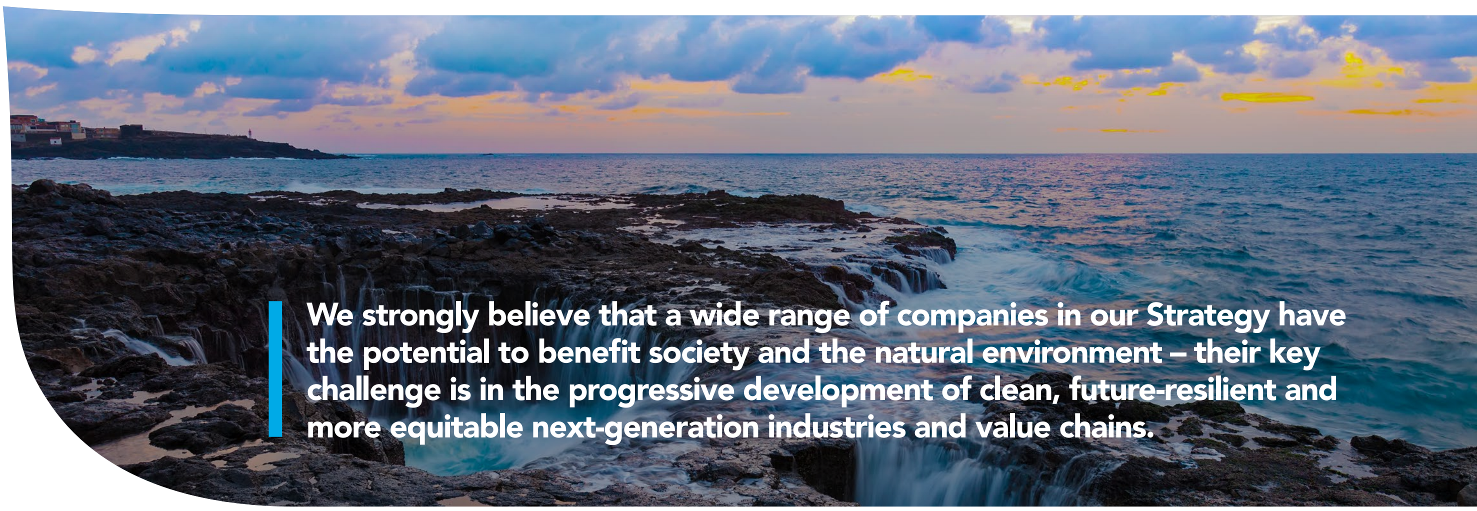
We strongly believe that a wide range of companies in our Strategy have the potential to benefit society and the natural environment – their key challenge is in the progressive development of clean, future-resilient and more equitable next-generation industries and value chains. In short, it is the job of many of these companies to provide the building blocks for economies and essentials for everyday life and employment. Their value chains must be transformed if we are to meet the aims of a cross-section of environmentally- and socially-focused SDGs.

Achieving these goals will not be easy, and there are bound to be bumps along the road. During 2020, we had a handful of SDG score downgrades; some holdings were removed from the portfolio because, contrary to our analysis and engagement hypotheses, it became apparent that they were not adequately equipped to drive change, they were unwilling to engage with us, or that they would not consider changes to their businesses. Here are some examples:

Norilsk Nickel was removed from our portfolio, despite a historically constructive engagement relationship, after an accident caused serious environmental harm. We were disappointed with the company's response. We had previously targeted this company's significant SDG impact potential, because the mineral it produces, nickel, is critical to renewable energy generation, infrastructure and storage capacity, as well as manufacturing internet-of-things (IoT) devices and electric vehicles.

Softbank Group's potential to boost social inclusion and reduce carbon emissions by commercialising promising digital innovations had previously formed the basis of our impact hypothesis. Subsequently, its weaknesses in risk oversight and its unwillingness after historic engagements to implement changes in governance led an eventual exit from the position in early 2020. However, we note that that EOS's lead engager has since succeeded in achieving some traction on a number of issues.

Neptune Energy's ability to make progress on the SDGs or meaningfully contribute to long-term energy transitions was, we felt, impaired by its weakened credit profile.

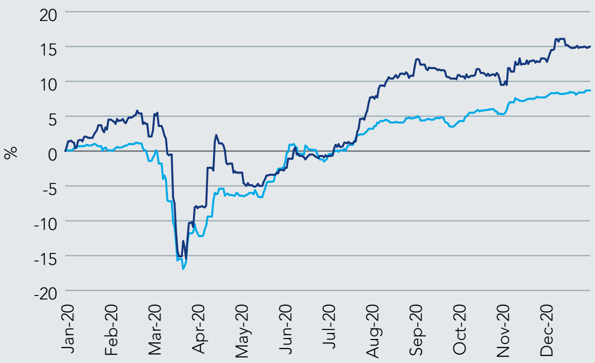


[1] Source: Moody's, 21 January 2021 (https://www.moodys.com/research/Moodys-Distressed-corporate-ratings-list-hit-its-record-worst-in--PBC_1261092)

CF Industries: the hypothesis in action

Our self-reinforcing objectives for societal impact and superior returns are well-illustrated by our investment in US-based chemicals manufacturer CF Industries (CF). The company characterises many of our strongest investment and SDG-based engagement hypotheses from a bottom-up perspective, and reinforces our belief that companies delivering returns to society will also deliver returns to investors over the longer term. As demonstrated by Figure 3, the 2034 5.15% bond delivered substantial outperformance on a total return basis compared to CF's peers over the last 12 months.

Figure 3. CF Industries outperformed its peers in 2020



— CF 5.15 03/15/34 — US High Yield Chemicals

Source: Bloomberg data and ICE BofA Indices, as at 31 December 2020.

SDG *ex-ante* alignment at CF Industries

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Ensure access to affordable, reliable, sustainable and modern energy for all

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Take urgent action to combat climate change and its impacts

During this time, CF's SDG *ex-ante* score was upgraded by our engagement team, due to meaningful changes in potential sustainability outcomes driven by its future commercial opportunities. CF, the world's largest producer of ammonia, announced in 2020 that it would enter the green and blue hydrogen market, marking a significant shift in strategy. CF is well positioned for hydrogen's end-markets in industrial and energy value chains, because it already has supporting infrastructure it can leverage. The capital intensity needed for CF to produce and sell green hydrogen is therefore lower than for its competitors.

On the fertiliser side of CF's business, it has partnered with The Nature Conservancy to further work with farmers on optimising the application of these products. This partnership has shown results, with 95% of farmers in Iowa now following best practices for fertiliser and conservation, improving soil health and reducing field-level greenhouse gas emissions.

Although the company aims to cut its emissions by 25% by 2030, and achieve net zero by 2050, it has not sought approval from the Science-Based Targets Initiative (SBTi). This may be partly due to CF's approach to Scope 3 emissions, which necessitates changing agricultural practices among other product usage elements it does not directly control. However, during a December 2020 engagement, we indicated that a decarbonisation metric in executive remuneration could be a robust way to align decision-making to the company's 2030 net zero commitments, as well as future action on Scope 3 downstream emissions. The company confirmed that it is looking at this option as it prepares to deliver against its strategy. We will continue to engage with CF on issues linked to SDG potential.

One year in, how has our SDG impact investing process evolved?

Our process for assessing the potential of companies to contribute to the SDGs was thoroughly tested in 2020. We are delighted with the rigorous implementation of our approach, as well as the continual learning and refinement that we embraced through the inaugural year of corporate engagement and fund management.

Our foundational objectives are unchanged: we seek to deliver strong financial performance for investors and positive social and environmental impacts that contribute to achieving the 17 SDGs. To achieve these goals, and enable the portfolio management and impact-based engagement strategy for each company, we require a nuanced assessment to establish our hypothesis for *ex-ante* SDG impact potential. This helps us establish our SDG *ex-ante* score of one to five, with a score of one reflecting a strong likelihood of substantial future impact, in line with one or more SDGs. Score definitions are summarised in Figure 4 and remain critical to investment decisions. In our H1 2020 Report, we outlined the reasons we use this approach (click here for more information).

Figure 4. SDG-aligned engagement: our six assessment factors

Six components of SDG *ex-ante* potential analysis…

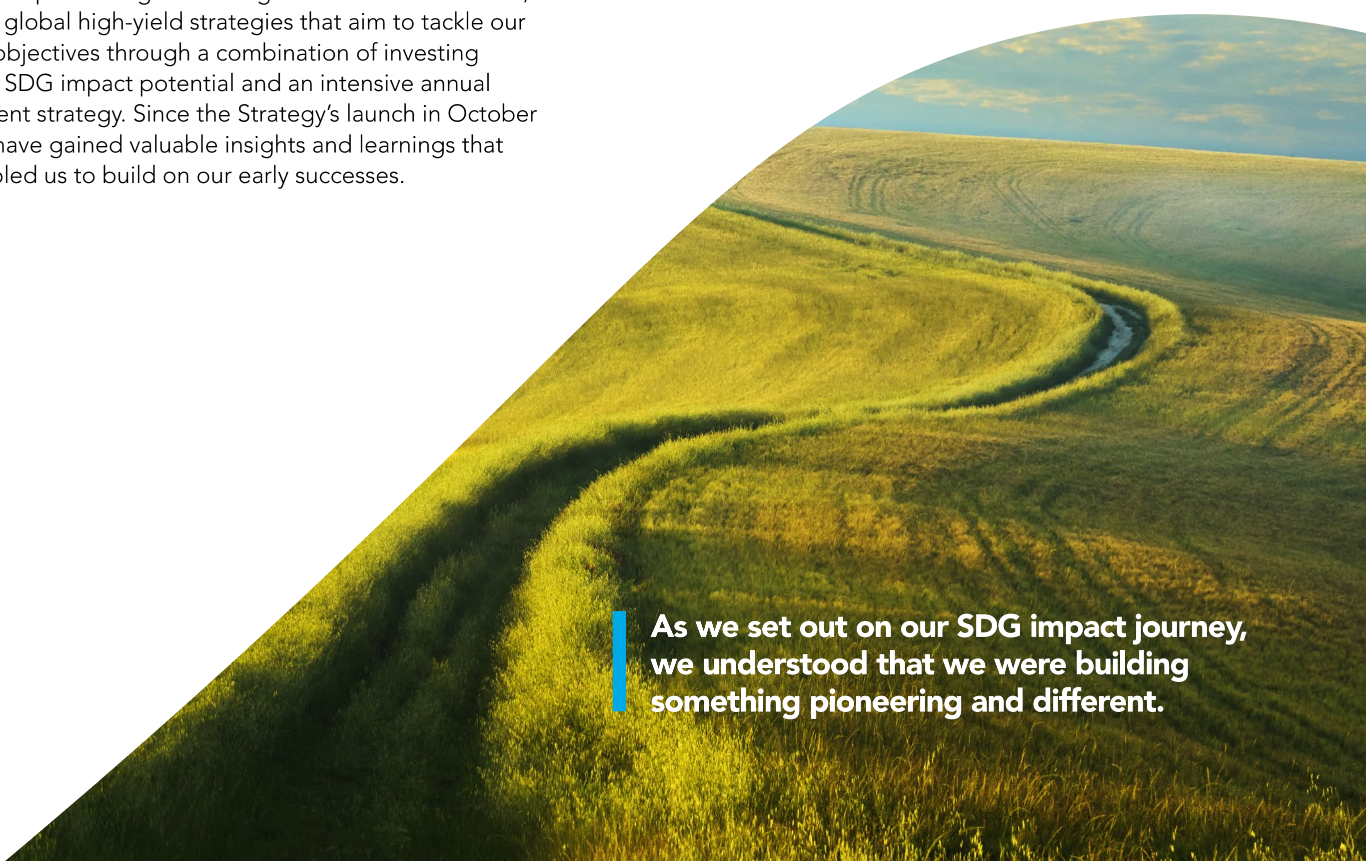
1. Business purpose & strategy
2. SDG-related benefits of products & services
3. SDG-related impact of operations
4. SDG-related capital allocation
5. Evidence & disclosure of SDG outcomes
6. Engagement insight

…help us define an SDG *ex-ante* score

SDG score 1	SDG score 2	SDG score 3	SDG score 4	SDG score 5
Impact exemplar	Credible high potential	Aspiring for impact	Paper promises	Unlikely & indifferent

Source: Federated Hermes, as at March 2021. **Full definitions of each SDG ex-ante score can be found in Appendix B.**

When we set out on our SDG impact journey, we understood that we were pioneering something different. There are few, if any, other global high-yield strategies that aim to tackle our co-linear objectives through a combination of investing expertise, SDG impact potential and an intensive annual engagement strategy. Since the Strategy's launch in October 2019, we have gained valuable insights and learnings that have enabled us to build on our early successes.



As we set out on our SDG impact journey, we understood that we were building something pioneering and different.

From SDG assessment to scoring and engagement, here we outline the top five lessons that we have learned over the last 12 months.

Five key lessons from 2020

1 Each company has a unique case for impact

There is no template for what SDG impact potential looks like. Through our six-factor SDG scoring framework (see Appendix A for more information), we seek to reflect unique circumstances and changes in each company's business model and competitive environment to assess SDG potential and the anticipated total impact on one or more SDGs, which is possible over the longer term (in other words, our 'impact delta').

2 SDG opportunities differ significantly by sector

Products and services, operations and capital allocation are powerful drivers of impact potential. The choices available to companies for enhancing outcomes through the value they create, how they behave and operate, and how they invest capital vary across sectors. This is why, in our H1 2020 Report, we committed to piloting sector-level heuristics. We have SDG heuristics that are bespoke to energy and telecommunications. We continue to develop a series of sector heuristics in 2021. We are excited to apply sector tools in robust, comparative impact analyses and evidence-driven engagement.

3 Comparative sector analyses yields stronger impact hypotheses

Our stewardship services team, EOS at Federated Hermes (EOS), brings substantial value to our investing and engagement approach. To leverage this, we undertake comparative sector reviews. At least three times a year, we review sector holdings with lead engagers and credit analysts using an 'in the round' style to compare challenges and opportunities on a sector basis. This strengthens our ability to define SDG *ex-ante* scores within sectors, and our ability to pinpoint engagement on material SDG impacts and unique ESG risks and opportunities. Moreover, our lead engagers use colleagues' knowledge of sector peers to leverage competitor insight in engagement dialogues.

4 Lead engager insight is crucial to SDG scoring and investment decisions

Thanks to EOS, we draw on established relationships and historic insight at many companies. Through our dedicated engagers, Aaron Hay and Jake Goodman, we also foster relationships and dialogues with companies in the high-yield space. *Engagement insight* has proven to be a powerful part of our six-factor approach. The time our 25 EOS and fixed income engagers spent with 114 companies during 2020 provides insight on management and organisational culture, behaviour, and decision-making styles. This in turn helps us assess the likelihood of impact and willingness to change. The value of 'factor six' cannot be understated.

5 Our engagements resonate with high-yield companies seeking constructive dialogue with, and impact on behalf of, investors and external stakeholders

Engagement in capital markets historically focused on equity. For some high-yield issuers, ESG and SDG-based dialogue with investors is a new concept, yet they recognise that expectations on ESG and impact are shifting fast. This was recurrent in 2020, as a substantial subset of engagements involved advice from our vantage point. For example, a range of companies sought feedback on moving from simplistic ESG disclosures to transparency that provides a full explanation of material ESG and SDG issues, as well as their ambitions for the future. We are delighted to partner with companies to assist in SDG and responsibility journeys. We expect to see more of this dialogue in 2021.

Deepening our SDG impact analysis by sector

Assessing impact potential in oil, gas & energy

In our H1 2020 Report, we committed to developing sector-specific SDG impact frameworks, based on our original six-factor scoring approach, which facilitates comparative assessments of sector peers. The energy sector was our first choice, given the risks and opportunities inherent to energy value chains through long-term carbon transitions in line with SDGs 7 (Affordable & Clean Energy) and 13 (Climate Action) to 2030 and beyond.

> **A sector-specific approach to SDG impact assessment has led to a more nuanced and engagement-ready *ex-ante* hypothesis for each investment.**

As we developed this, we recognised that highly material opportunities differ substantially among sectors, but are usually similar for peers within sectors. In the case of energy value chains, SDG impact opportunities are highly material within products and services, company operations and capital allocation (factors two, three and four in our six-factor approach). Using these lenses, the most material potential becomes readily apparent when shown in the context of SDGs 7 and 13. In relation to SDG 7, energy companies can seek to diversify into long-term growth opportunities in renewable and low-carbon fuels, and energy generation. In relation to SDG 13, they can seek to minimise the embedded carbon and environmental impact of fuels in production or energy generated through how they operate. Furthermore, energy companies often exhibit capital allocation priorities that address one or both of these priorities.

For example, midstream energy companies in the business of transporting fuels have an opportunity to sell lower-carbon transition fuels in emerging markets (such as substitution of high-emissions wood biomass, which has negative air quality and human health impacts, for propane in cooking) while making operational investments to minimise operational emissions and maximise asset safety and efficiency.

A sector-specific method of assessing companies has also allowed us to identify specific qualitative and quantitative evidence that supports our hypotheses on the likelihood of future impact. Tailoring the sector-specific analysis to focus research on key metrics and evidence, such as firms' efforts to reduce greenhouse gas emissions and transition sales mixes away from high-carbon fuels, provides data to more accurately support or refute our defined case for impact on SDGs, both individually and relative to peers that may have differing ambitions for addressing similar risks and opportunities over the long term.

The energy sector was our first choice, given the risks and opportunities inherent to energy value chains through long-term carbon transitions in line with SDGs 7 (Affordable & Clean Energy) and 13 (Climate Action) to 2030 and beyond.

Zeroing in on sector impact: how might energy companies contribute to SDGs 7 and 13?

Critical factors for the sector	Highly material evidence of SDG potential – examples*
SDG-related benefits of products & services How are SDG-related benefits provided through products or services? Are these key to the value proposition for customers or society?	• Diversify into renewable fuels and energy products and services (quantified in future product and service mix) • Extract and sell lower-carbon transition fuels (quantified in future production mix) • 'Best-in-class' fuels for lifecycle greenhouse gas emissions, or low-carbon or carbon-neutral products with robust offsetting (quantified in sales based on downstream customer requirements)
SDG-related impact of operations How is the company driving SDG-related benefits through its operations across the environmental and social dimensions within its control, or through its influence over its value chain?	• Scope 1 and 2 emissions intensity reduction, with net zero intention or strategy for remaining emissions (quantified in goals and results) • Electrification of processes and goals for use of renewable electricity or low-carbon fuels in operations (quantified in proportion of alternative or renewables use) • Methane management, leak detection, repair optimisation with goals to reach to zero or near-zero methane releases (quantified in goals and results) • Evidence of alignment with Paris-aligned emissions reduction pathways, quantified using Task Force on Climate-related Financial Disclosures (TCFD)-aligned disclosures • Water and non-carbon emissions-management strategies with targets and clear disclosure (quantified in goals and results) • Safe, healthy workforce (quantified in health and safety data and goals) • Inclusive employment (quantified in comprehensive human capital management, diversity, inclusion and training reporting)
SDG-related capital allocation Is the company allocating capital to invest in growing products or services with SDG-related benefits? Has the company disclosed or quantified this?	• Planned capital allocation disclosure for investment in products, services or operations with sufficient granularity to assess potential for impact (quantified, explained proportion of capital allocation)

* Note: For a full summary of the six factors we apply in assessing SDG impact potential, see Appendix A.

SECTION 2

2020 Engagement Review

Building the foundation and hitting our stride: a promising, productive inaugural engagement year

Aaron Hay,
Lead Engager, Fixed Income

Jake Goodman,
Engagement Manager,
Fixed Income

Bertie Nicholson,
Engagement & ESG Associate,
Fixed Income

What did we achieve in our first year of SDGHY engagement?

We have an exceptional runway to future engagement thanks to outstanding progress across our entire 2020 programme of activity. We achieved our overarching goal of 100% invested company annual engagement (i.e. as at 31 December, we engaged every company in the 2020 portfolio). With mid-year engagement at 78% of portfolio companies, we were set up for a productive end to 2020. Our work should enable deeper, more open dialogue and evidence-based discussion of issues with management teams and boards in 2021 and beyond.

As of 31 December 2020, 353 engagement actions[2] were carried out at 114 companies[3] for the Strategy. Within our team, the engagement actions were delivered as follows:

- Aaron Hay, Lead Engager, delivered 126 actions, touching on 417 issues and objectives, at 37 companies; and
- Jake Goodman, Engagement Manager, led 27 engagement actions and focused on 89 issues and objectives, since his appointment in August 2020.

Bolstering our engagement capabilities in fixed income

We strengthened the engagement capabilities in our fixed income team with the appointment of Jake Goodman as Engagement Manager and Bertie Nicholson as Engagement & ESG Associate.

Jake Goodman, Engagement Manager, Fixed Income

Jake joined the international business of Federated Hermes in 2020 as an engagement manager for the Federated Hermes SDG Engagement High Yield Credit Strategy. He engages portfolio companies on a wide spectrum of ESG and SDG-related issues and opportunities, with particular focus in the basic industry, telecommunications and real estate sectors. Previously, Jake worked at the Principles for Responsible Investment (PRI) on initiatives for integrating ESG issues into investment decision-making. Jake was previously a sustainability consultant at Eco-Age, where he advised clients on energy use, circular economy, product traceability and labour standards. Jake has a BSc in Environmental Science from the University of Nottingham and is a CFA Level 3 candidate.

Bertie Nicholson, Engagement & ESG Associate, Fixed Income

Bertie joined the international business of Federated Hermes in 2020 as an engagement and ESG associate in Fixed Income. He supports our investing analysis, engagement strategies and portfolio management efforts across climate and sustainability-themed fixed income products. Previously, at BlackRock and the Foresight Group, he applied ESG analyses in sustainability-related fund management. He also worked with the Reserve Bank of India in its Pune Institute, researching prospects and challenges of microfinance in India. Bertie graduated with a first-class BA (Hons) in Economics and Business Management from Newcastle University.

[2] An engagement action typically takes the form of face-to-face meetings, remote meetings such as teleconference and video conferences, substantive direct written correspondence, participation in collaborative meetings, and written communications with other investors, as well as attendance to major investor day events and annual general meetings where feasible.

[3] We engaged more companies in 2020 than the total companies held in the portfolio as at 31 December 2020 due to portfolio turnover; for example, engagement at companies, then followed by divestment prior to year-end.

EOS: a unique advantage

EOS is a pioneer of global stewardship and continues to build our collective platform, with client equity and credit assets under advice (AUA) standing at $1.3tn as of 31 December 2020. Acting on the priorities set by clients, it develops company-specific engagement strategies, informed by the deep understanding of sectors, engagement themes and markets within its team.

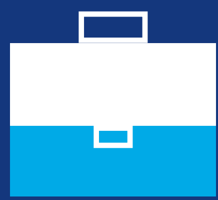
Our Strategy benefits from experienced senior engagers that lead efforts to initiate relationships and deepen long-running dialogues and, last year, engagers from EOS led engagement at 46 portfolio companies. In total, 23 of our EOS colleagues drove 200 engagement actions, bringing 435 corporate issues and objectives into focus.

EOS: leaders in stewardship and engagement

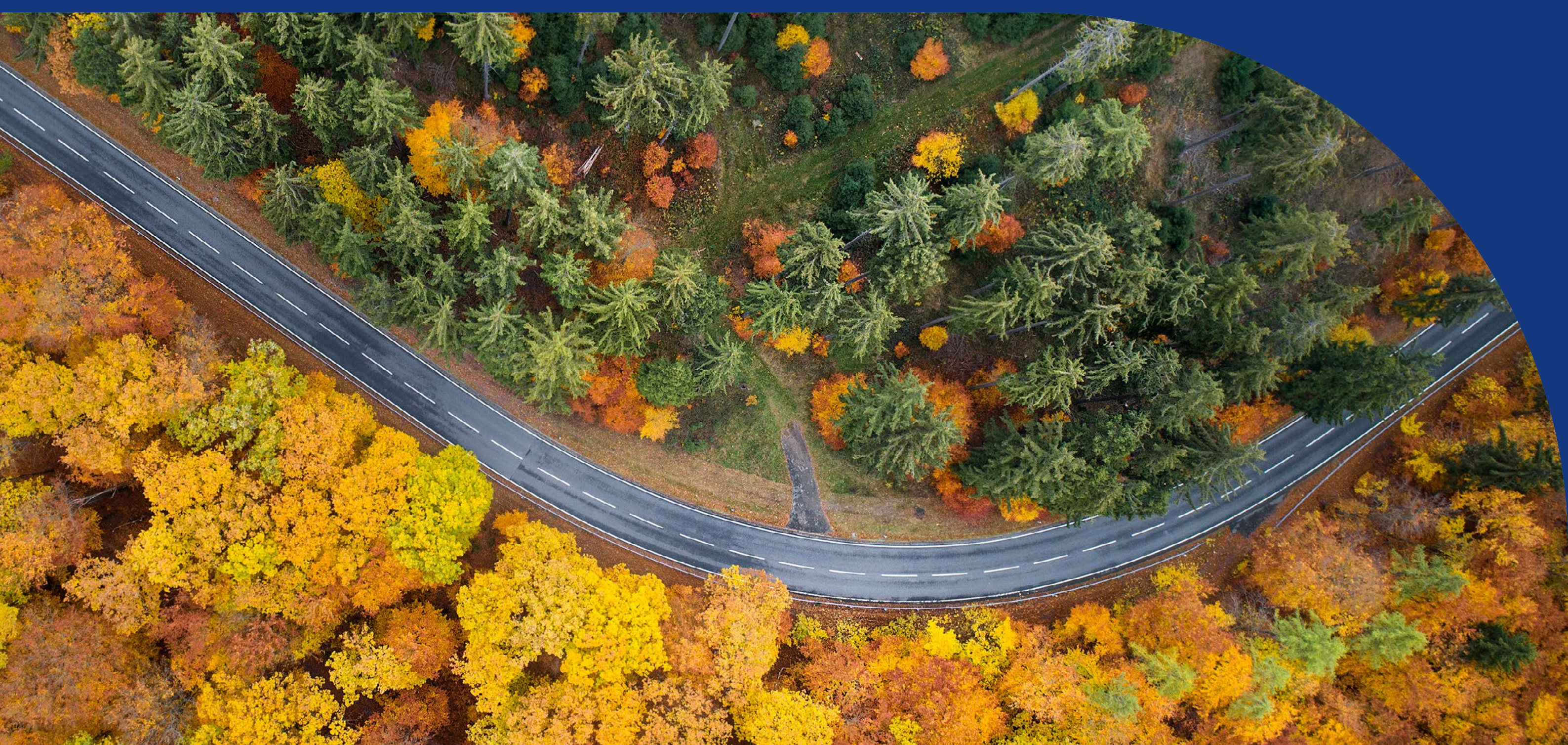
$1.3tn
assets under advice

EOS senior professionals led engagement for

46 portfolio companies in 2020.



Source: Federated Hermes, as at 31 December 2020.



2020 engagement highlights

What did we engage on in 2020?

It is customary to see higher intensity in the first half of each calendar year, during which full-year disclosures are released, non-financial disclosures are updated and AGMs are often held. We extensively engage on governance and remuneration at this time, which involves a combination of dialogue on governance risks, board effectiveness, executive remuneration, 'board-ready' written feedback, and voting recommendations made to EOS clients (see our H1 2020 Report for more information).

As a result, although we achieved significant progress in the first half of the year (205 actions at 82 companies), our discussions shifted to wider ESG and SDG issues and opportunities through the remaining 148 actions in the second half of 2020. It is typical in engagement to drive more dialogue on environmental and social issues in the latter half of each year, when AGM and shareholder voting issues are in the rear-view mirror.

As always, our holistic engagement approach for each company is based on the pioneering engagement model and planning process developed by EOS.[4] We focus engagement priorities on global engagement themes and sub-themes (see Figure 5) as a starting point, with deeper emphasis on substantial risks and opportunities specific to each sector and company. While future SDG achievement is a constant focal point, our engagement reaches well beyond it. Stewardship of all relevant responsibility issues forms the foundation of engagement, and indeed, can lead to indirect but positive SDG contributions as well.

Figure 5. Engagement themes: 2021-2023

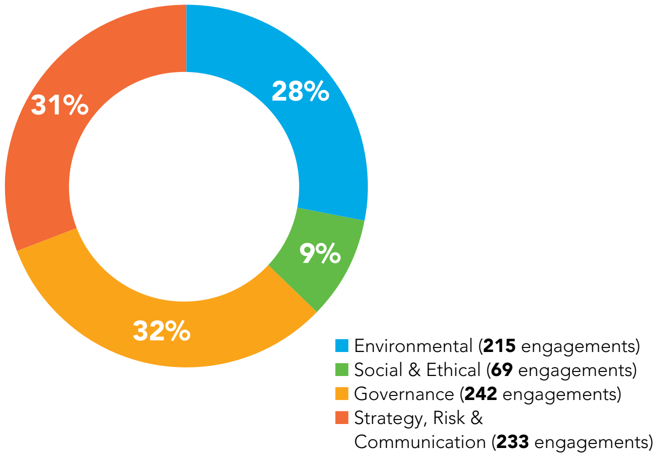
Source: Federated Hermes, as at January 2021.

[4] For greater detail on how we engage, the EOS Engagement Plan 2021-2023 is available here.

Balanced engagement across four areas of focus

In recent years, systemic and pressing environmental challenges facing entire sectors and value chains have increased. Besides pressure from societal stakeholders and an increasing range of investors, we believe commercial opportunities that address challenges over the long term – as aligned to the SDGs – are fundamentally important to future engagement.

Figure 6. Across 353 overall engagement actions in 2020, our dialogues featured a holistic mix of ESG themes to address with companies[5]



Source: Federated Hermes, as at 31 December 2020.

It was therefore unsurprising to see environmental themes thoroughly addressed by our 25 lead engagers in 2020. While our strength in governance-based engagement dialogue featured in 242 engagements, those that directly addressed a combination of commercial strategy, enterprise risk, and environmental challenges and opportunities also markedly increased. This continued to grow in 2020.[6]

The orientation of our portfolio towards asset-intensive sectors, which are more carbon intensive, makes engagement on environmental impact even more important. Given this orientation, climate and environmental issues will feature as a perennial, ongoing discussion topic on the agenda at most engagements during 2021 and beyond.

On the complex and nuanced issues of social impact and ethical business practice, there were fewer opportunities to engage during this phase of our engagement strategy. For these issues, it is difficult to abstract and measure in numbers and costs alone, therefore necessitating greater discussion. As we highlight later in the report, we expect subthemes within the social and ethical arena to form a more substantive part of our corporate engagement strategy in 2021 and beyond. A good example of this is in understanding how companies are preparing long-term strategies to drive gender and racially diverse recruitment and retention, as this requires long timescales to shift talent pipelines, skilling and re-skilling programmes, and workforce equity in pay and composition. Another example relates to understanding more deeply how product-centric companies, such as manufacturers, are providing meaningful, fair employment opportunities in operations and ensuring decent work and pay in upstream supply chains.

How did we engage with companies on specific issues across the year?

Strategy, risk and communication engagement highlights

In 2020, we primarily focused on gaining a deeper understanding of business strategy; understanding how companies manage enterprise risks; and defining our requirements for improving practices in ESG-integrated and non-financial reporting.

Figure 7. Strategy, risk and communication focal points in our 2020 engagements

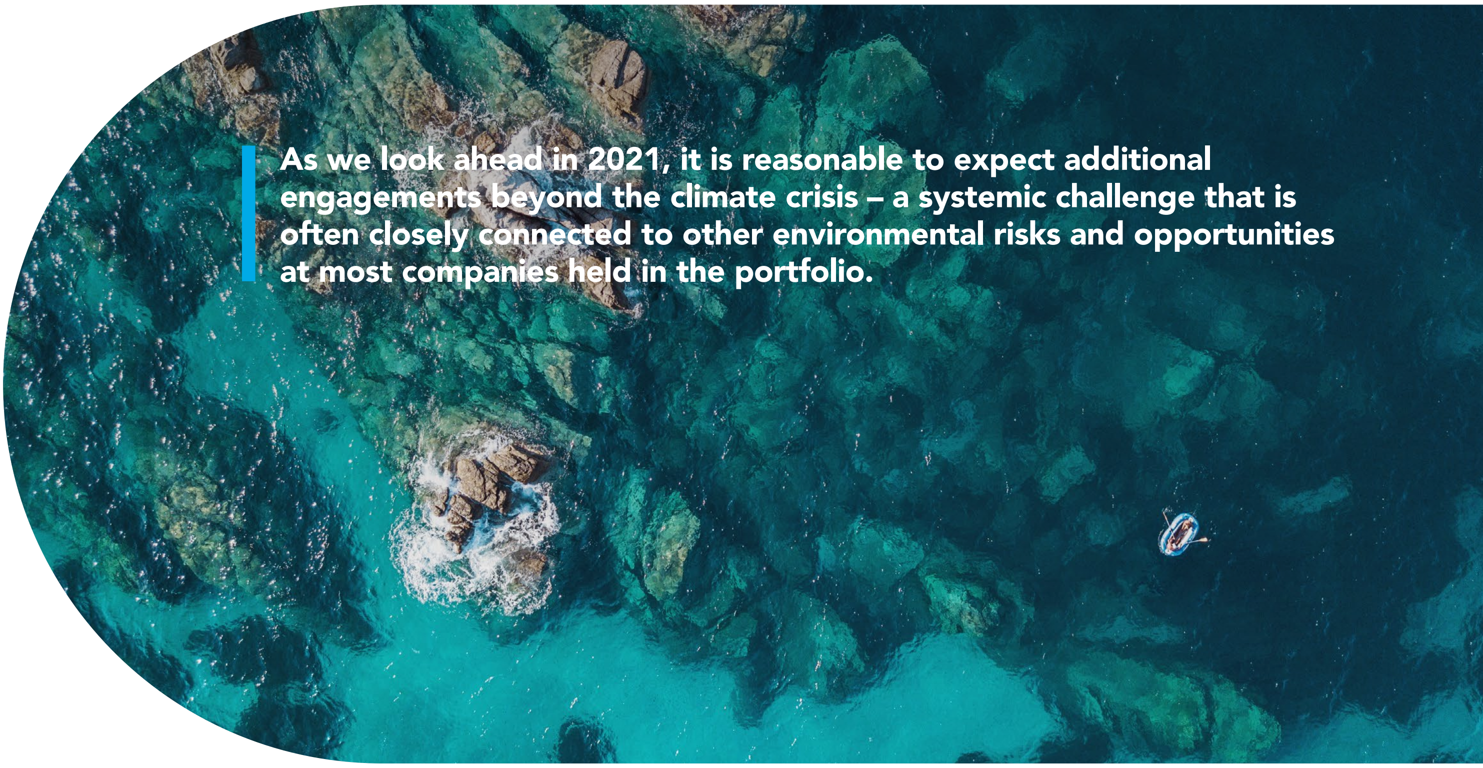
Source: Federated Hermes, as at 31 December 2020.

For example, we carried out 20 engagements in packaging and basic materials that focused on how companies in these sectors are planning medium- and long-term product strategies based on substantial trends that indicate demand for urgently needed, sustainable offerings and cleaner, lower-impact processing and manufacturing in these supply chains. The packaging and materials sectors have notable energy, waste and water footprints, in addition to challenges inherent to raw material inputs – many of which also require decoupling from input hydrocarbons over the next decade. We believe materials and packaging companies **Alcoa, Domtar, Smurfit Kappa, Ball Corporation, Berry Group** and **Sealed Air** (which we hold in the Strategy) have substantial latitude to drive future growth and commercial resilience by contributing to SDGs 9 and 12 through sustainable product offerings and partnerships with downstream customers.

We carried out strategy dialogue in all product-oriented sectors; the product portfolio is often the most material and highest-magnitude route to impact against SDG goals and indicators. We focus on understanding how future revenue, sales, margin and product mixes may shift from status-quo to future-proof solutions to drive commercial resilience and external impact.

There are acute short- and long-term risks in product-based sectors. We seek to understand how – and whether – such risks are adequately managed. It is unsurprising that substantive risk discussion featured at companies with high exposure to systemic opportunities and risks tied to climate change, including **BP** (seven engagements), **Anglo American** (six engagements), **General Motors** (five engagements), **Range Resources** (four engagements) and **Energias de Portugal**

[5,6] The sum of engagement actions based on themes is greater than the sum of total engagement actions carried out, because many engagement meetings, calls and letters regularly feature agendas and dialogue that spans several theme areas.



(three engagements). We expect strategy, and management of downside ESG risks in existing products and services, to be a prominent feature of our 2021 engagements.

Non-financial disclosures remain an important focus. Marked improvement is needed from some high-yield issuers on how ESG risks and impacts are reported and quantified, because comparable data is a prerequisite for second-order, evidence-based engagement. It is difficult to engage on impact when we cannot identify a company's starting point. For instance, after a halt in engagement, we downgraded our SDG score and exited a position in **Calpine**, a US owner of gas-fired, geothermal and solar power assets, as we were unlikely to achieve our objective of ESG disclosure or substantive TCFD-based reporting. With this unavailable, we could not hypothesise on whether Calpine could have a positive SDG-orienated impact relative to power-generating competitors rapidly seeking to address decarbonisation, policy and climate-related risks for their stakeholders.

Environmental engagement highlights

As we said in our H1 2020 Report, it would be exceedingly difficult to engage companies holistically without continuously addressing the systemic opportunities and risks associated with climate change. It is therefore unsurprising that this continued as the single most-engaged issue for the portfolio, featuring in 184 of 353 engagements – equating to 55% of all 2020 activity. This activity is tied to 292 issues and objectives that EOS and our dedicated fixed-income engagers tracked at 114 companies. This means our 25 engagers addressed multiple, cross-cutting climate-related questions with many companies.

As with strategy and risk-based engagement, the most intensive climate discussion took place at companies that either had outsized carbon emissions footprints (Scope 1 and 2) or were part of value chains that lead to significant emissions (Scope 3). Indeed, the 10 most intensively climate-engaged companies in our Strategy sat in the utilities, oil and gas, and automotive sectors, with a combined 88 engagements across these 10 holdings. A mining company **(Anglo American)** and a chemicals firm **(CF Industries)** rounded out the 10, given that similar material full-scope emissions must be tackled.

Figure 8. Key environmental themes in our 2020 engaegments

Source: Federated Hermes, as at 31 December 2020.

Beyond matters of climate change, pollution and waste management issues also raised significant discussion. These engagements primarily addressed three areas where we want to see significant progress:

1. Plastics and packaging waste, recyclability and recycled content, and the transition from linear to circular value chains in **packaging** (11 engagements);
2. Minimising local impact of the waste and emissions to air and water from operations in **mining** and **energy** (five engagements);
3. Improving practices in water and waste management and remediation in **pulp and paper** (three engagements).

As we look ahead in 2021, it is reasonable to expect additional engagements beyond the climate crisis – a systemic challenge that is often closely connected to other environmental risks and opportunities at most companies held in the portfolio.

Highlights of 2020 engagement and objectives for change in our environmental sub-themes

Climate change

Anglo American

Lead Engager – Andy Jones

We engaged Anglo American nine times in 2020, directly and in co-leadership of Climate Action 100+ (CA100+) collaborative dialogues. We have an objective to ensure that the company commits to a long-term net zero carbon mining ambition by no later than 2050, supported by a disclosed pathway for emissions and technology milestones. Milestone three *(plan established)*[7] was passed, given that in May 2020 the company announced a carbon neutrality ambition in operations by 2040. We now wish to see further detail on the pathway and interim targets underpinning the commitment.

General Motors

Lead Engager – Aaron Hay

We believe General Motors (GM) should set SBTi-validated targets for all scopes of emissions. Previous targets focus on Scope 1 and 2, which do not address the majority of full-scope emissions arising from vehicle use. We raised this in several 2020 engagements. GM acted in line with milestone three *(plan established)* against an objective for zero-emissions sales targets and indicated as of January 2021 that emissions goals may be validated with SBTi. As such, we believe our objective may advance from milestone two *(concerns acknowledged)* in 2021.

Pollution and waste management

Berry Global

Lead Engager – Joanne Beatty

Berry has a record of innovation in packaging, but faces environmental, regulatory and reputational risks related to use of fossil-derived plastic feedstocks and poor end-of-life waste management downstream. In 2020, we engaged on this, as we believe the company should articulate its risks and how it is changing its business to address opportunities and set targets for sustainable or recycled raw material inputs beyond its 10% content goal, to complete milestone two *(concerns acknowledged)*.

Water

SIG Combibloc

Lead Engager – Aaron Hay

In engaging SIG for the first time, we discussed risks relating to the direct and indirect water footprint of production involving significant quantities of wood fibres. Although this is a renewable feedstock, it is not without risk, so we have set an objective for the company to provide a full-scope water footprint, a CDP disclosure for water performance, and an indication of how it plans to manage any heightened water risks, with targets where appropriate. We seek to pass milestone one *(concerns raised)* in 2021.

Climate Action 100+ has become a strategic tool for influencing impact on SDG 13 and beyond

Climate Action 100+ (CA100+) is strongly supported by Federated Hermes, with EOS leading or co-leading collaborative multi-investor engagement at 30 companies that are among the world's most significant carbon emitters. According to the CA100+ 2020 Progress Report, published in December, 43% of companies engaged by the initiative have now set a net-zero carbon target. However, there are gaps in target coverage, with only 10% of focus companies setting a net zero by 2050 target that covers significant Scope 3 emissions.[8]

This remains an important route to engagement on SDG 13 and climate action in 2021. Our Strategy benefits from the engagement leadership shown by EOS at portfolio companies, with objectives for change that we are pursuing at BP, Anglo American and Severstal, among others.

Key data for CA100+

Over **545** signatories

With over **US$52tn** under management

Over **160** companies targeted, accounting for an estimated **80%+** of global industrial emissions

EOS leads or co-leads the engagement on **30** companies across the three major regions (North America, Europe and Asia)

EOS collaborates with others on another **14** companies

[7] Our milestone approach was discussed in detail in the H1 2020 Report. EOS' Annual Report and Engagement Plan provides further detail.

[8] https://www.climateaction100.org/wp-content/uploads/2020/12/CA100-Progress-Report.pdf

Social and ethical engagement highlights

We are pleased with the level of engagement achieved on social and ethical issues during 2020, having driven 69 actions across the social and ethical themes we customarily engage on. Human capital management was a frequent topic (21 engagements), as we believe sectors requiring transformation for survival and long-term positive impact will require new strategies to recruit future-focused individuals, nurture their skills, and manage and reward them effectively. Safeguarding employees is clearly vital, as is the need to retain and retrain to ensure the availability of critical skillsets.

We discussed future-facing skills for climate and social finance at **Intesa Sanpaolo;** the prospect of a war for critical talent in the renewables development sector at **Clearway Energy;** and achieving stronger, more consistent health and safety protection for workers at **Aker BP** and **Country Garden.** This has also been set as an objective for 2021 engagement with **KB Home** and **Orbia Advance.**

Figure 9. Social and ethical engagement themes in 2020

Source: Federated Hermes, as at 31 December 2020.

In 2021, we are looking forward to deepening our engagement with companies on how they envisage their role as responsible employers and job creators, particularly as a range of skills will need development if there are acute local talent shortages in the future. This means that, by necessity, we must engage more deeply on matters of workforce and management, gender and racial diversity and equity, both in terms of workforce composition and remuneration. The role of companies as responsible job creators goes hand-in-hand with ensuring that existing and new roles reflect the composition of the societies in which companies operate – and recruit from. This featured in 14 engagements across the year.

For example, we raised the issue of workforce reporting and the development of a more diverse workforce and management team at multinational utility company, **AES Corporation.** We believe that success in diverse recruitment and talent development will help secure the right energy and technology skills needed for its renewable energy growth strategy. This is an objective we will revisit at this and other companies in 2021.

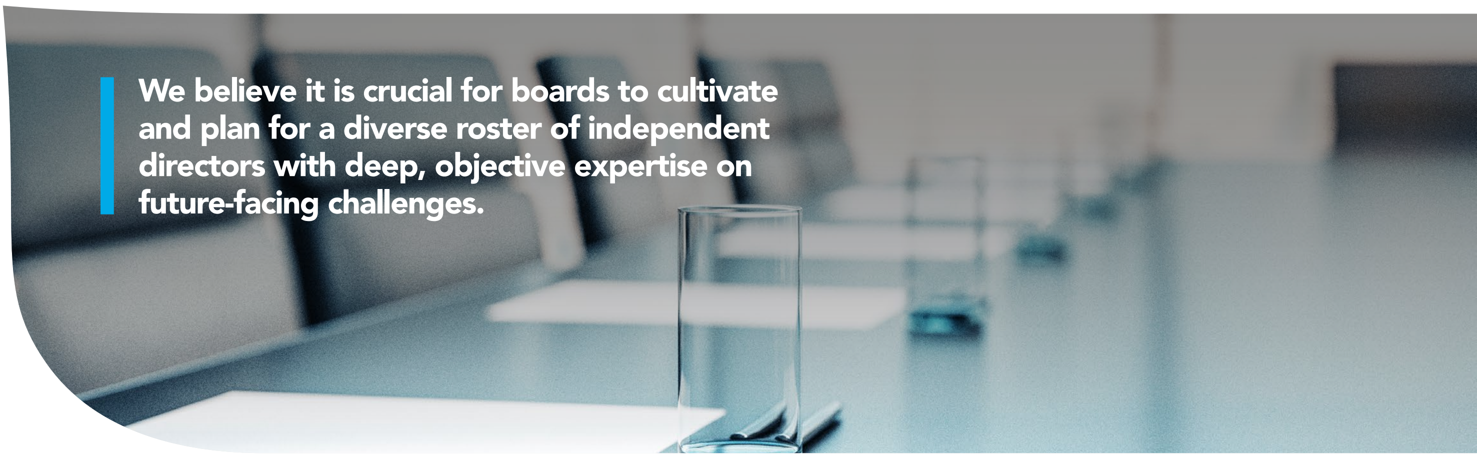
Governance engagement highlights

In our H1 2020 Report, we comprehensively explained the reasons we focus on governance. We also documented the heightened engagement dialogue that is achievable around voting season, centred on AGMs in March through to June for many companies in the portfolio. We engage on behalf of the Strategy, and fixed-income and equity assets in the EOS engagement plan held by clients. This means we often provide voting recommendations for 1% or more of the voting rights at many companies.

It is therefore unsurprising that our focus of engagement remained an issue that is highly material to both financial performance and long-term resilience: how senior executives are rewarded.

This drove 90 engagements across 2020. For example, at **Aker BP, Range Resources, EnLink Midstream, CF Industries** and **Veolia Environment,** we asked how firms can increase senior management's focus on issues of internal and value chain decarbonisations by tying a higher degree of pay-for-performance objectives to emissions intensity or product and service portfolio decarbonisation. In the case of energy companies, we believe that those with fossil-fuel exposure need to move away from incentivising executives based on absolute growth in reserves or production. Market conditions and climate and energy transition needs mean that prudent and effective management of existing assets and operations require greater priority in pay incentives.

We engaged on the composition, skills, knowledge and diversity of boards on 64 occasions. We believe it is crucial for boards to cultivate and plan for a diverse roster of independent directors with deep, objective expertise on future-facing challenges. Directors must assist management with ensuring long-term financial and corporate resilience and appropriately managing relevant enterprise risks. But we also believe that

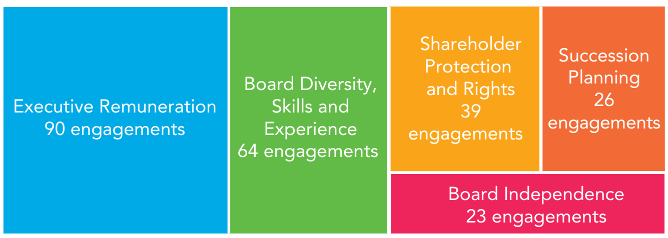


management teams can leverage highly informed directors as 'critical friends' to provide an external perspective on emergent challenges and opportunities, which the business can confront by turning business models into solutions through their strengths and capabilities.

This was a central spine of 2020 governance exchanges, with **Post Holdings, Country Garden, Toll Brothers** and **Bank of Ireland**, among others. At **Post**, for example, we have made it clear that we would like to see it eliminate its classified board structure, and recruit directors with future-facing skills in sustainable agriculture (the company's key raw input) and greater gender and ethnic diversity. All new or existing directors should be accountable to investors on an annual basis, as the classified structure makes this impossible on a regular basis for outside shareholders today.

At a purely practical level, some high-yield issuers will be more attractive to a wider range of responsibility-oriented creditors if they can demonstrate robust independent oversight of strategy and how and whether value is being created for investors, workforces, societal and environmental stakeholders for the long term.

Figure 10. Key governance engagement themes in 2020



Source: Federated Hermes, as at 31 December 2020.

How did we drive progress with companies in our first year of SDGHY engagement?

It typically takes two to five years for a meaningful engagement objective to culminate in an outcome, depending on the magnitude of change implied by that objective. We often observe the following pattern:

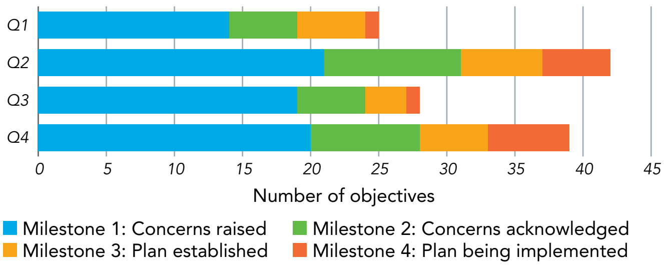
Year 1
- Build a relationship

Year 2
- Gain buy-in and reach consensus on what type of change is necessary

Years 2-3
- Develop, seek feedback on and implement a plan for change. This may entail a strategy, budget, resources and teams, as well as partnerships – particularly in value chains where firms have less direct control of social and environmental impacts

Years 3-5
- Deliver, measure and report on outcomes

Figure 11. Many objectives progressed to milestone one in the Strategy's first year



Source: Federated Hermes, as at 31 December 2020.

In the Strategy's first full calendar year, a significant portion of engagement objectives advanced to milestone one as demonstrated in Figure 11. Put simply, we have raised our concerns or advice. This reflects the portfolio of about 65 companies being engaged thoroughly for the first time by dedicated fixed income engagers. In many cases, we are fostering brand-new relationships and establishing topics for longer-term dialogue. A total of 74 objectives were advanced to milestone one in 2020, and a further 19 advanced to our second milestone (that is, concerns have been acknowledged by the company).

Furthermore, Figure 11 also shows highly progressed objectives that have already achieved milestones two and three. As 23 of our EOS colleagues have been working with some of their 46 engaged companies in the Strategy for many years, it is customary to expect a significant range of objectives are approaching milestone three or four, or are nearing completion, meaning that we have achieved the

In 2020, we made progress on…

59% of **74** environmental objectives

65% of **48** strategy, risk and communication objectives

38% of **24** governance objectives

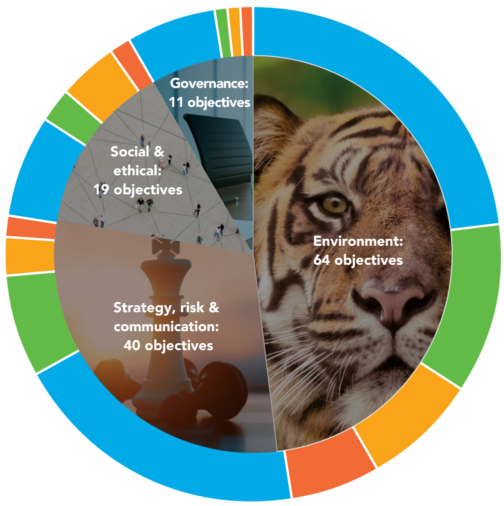
68% of **19** social and ethical objectives

165 objectives have now been set at **114** companies for multiple points of focus in their engagement plans

change we believe is needed. By examining the progress of the engagement objectives across our four themes (see Figure 12), several important patterns emerged in year one. Firstly, more than three-quarters of the objectives that we have set are focused squarely on issues of environmental sustainability, long-term commercial strategy and risks, and improving practices in non-financial reporting. This is a confirmation of our product-based sector orientation, and of the commercially relevant nature of delivering against environmentally focused SDGs over the longer term through our core strategy. Another important observation is the preponderance of objectives we have set that have now achieved milestone one *(concerns raised)* across all four engagement themes – with many new objectives set that seek alignment of core strategy and longer-term commercial success with greater impact on SDG-based outcomes.

In our upcoming half-year 2021 report – and armed with 18 months of full engagement – we will dive into a series of objectives that we have set and progressed across the four themes to highlight how we go about influencing companies on specific, defined challenges and opportunities.

Figure 12. The Strategy's first year was characterised by a focus on objectives which seek change in business strategy and tackling environmental risks and opportunities



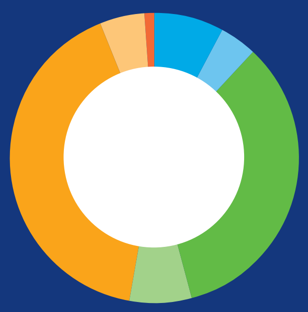
Source: Federated Hermes, as at 31 December 2020.

Does high-touch engagement work during a global pandemic?

Engagement of a portfolio spanning the Americas, Europe and Asia-Pacific is subject to distinct local management and stakeholder interaction cultures, and practically, limitations imposed by time zones and the cost and carbon emissions associated with travel. In the past, we adapted by mixing face-to-face meetings and visits, or engagement in our London and Pittsburgh offices, with teleconference or video-based meetings. Lead engagers have latitude to plan individual, annual engagement strategies and action plans, taking into account when the gravity and timing of in-person engagement may be useful in influencing key stakeholders.

2020 was quite different. Face-to-face company meetings ceased in March, and in many cases they won't resume in 2021. In previous years, it was customary to see a mix of in-person and remote engagement. In 2020, the balance tipped, with only 29 face-to-face engagements and 13 collaborative investor engagements taking place for the Strategy. This is in contrast to a combined 146 engagements carried out via teleconference, video and other virtual interactions. A third of all face-to-face dialogues were driven by a sweeping, fortunately timed February 2020 engagement trip, during which our Strategy's lead engager, Aaron Hay, met nine companies in Michigan, Pennsylvania, New York and Texas.

Figure 13. 2020 rapidly shifted us to engaging from a distance



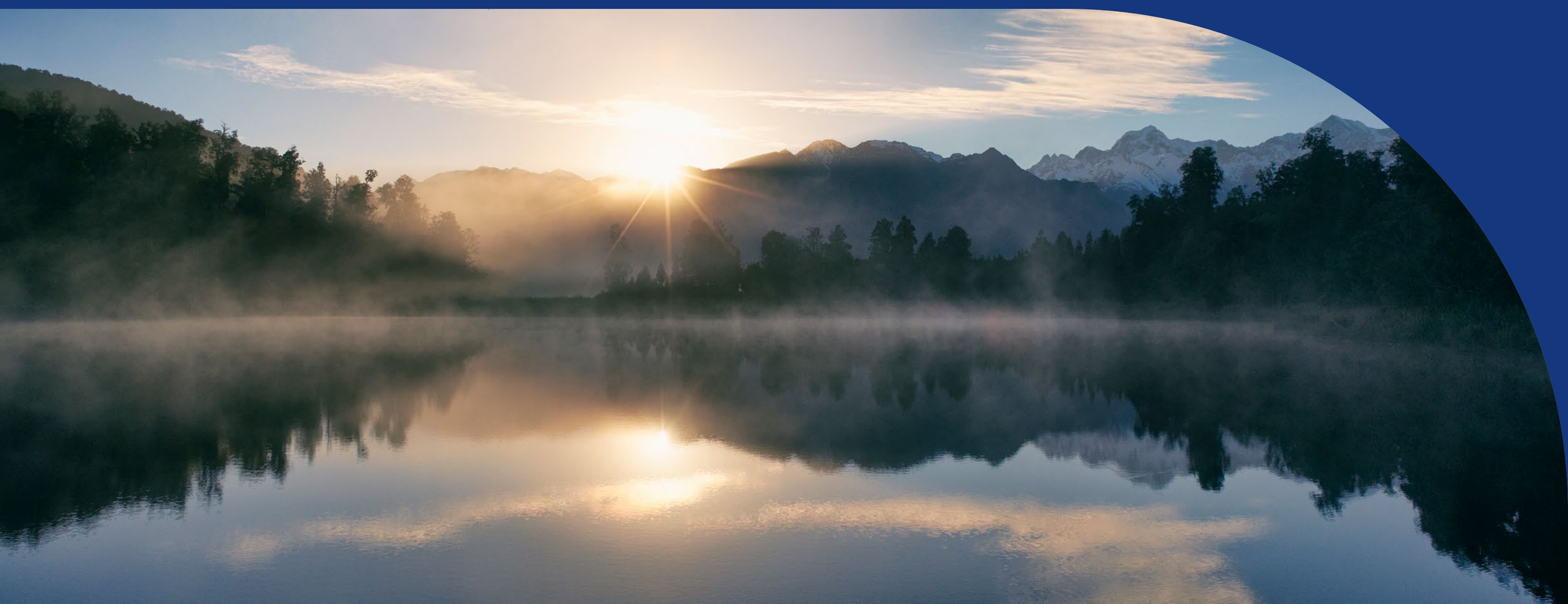
Source: Federated Hermes, as at December 2020.

We are very pleased with the quality of engagement achieved despite restrictions on travel and work. Three factors helped sustain the quality of engagement despite the difficult circumstances. First, our EOS planning approach made it easy to augment guidance to companies during and after remote meetings to ensure similar engagement quality. Second, our strategy of engaging global portfolios in a travel-optimised manner meant only minor adjustments to our approach. Finally, and importantly, we were aided and impressed by the adaptation and communication that management teams across companies in our portfolio exhibited to ensure open communication with investors and stakeholders during stages of the pandemic which varied enormously across localities.

This is exhibited by Figure 14, which demonstrates that our mix of stakeholders has evolved since our half-year update. We had strong engagement with senior counterparts in 2020, including increased access to Chairs and CEOs (8% of engagements) and continued progress with executive management (9.4% of engagements), heads of sustainability and other executives (21% of engagements). The majority of engagement includes participation from *outside* investor relations. As we develop our relationships as long-term creditors, we believe the share of senior manager and director interaction will increase.

Figure 14. Engagements in 2020 (by stakeholder)

Source: Federated Hermes, as at 31 December 2020.



SECTION 3

SDG Impact Review

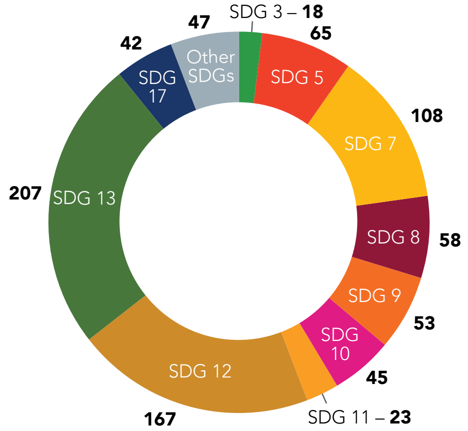
Looking back on 2020, our thematic SDG engagement remains in line with many of the trends we identified in our H1 2020 Report. Climate Action (SDG 13), Responsible Consumption and Production (SDG 12), and Affordable and Clean Energy (SDG 7) remained the most intensively engaged-upon themes over the last 12 months. Indeed, this is what we expected for impact-based engagement in a portfolio of this nature after one full year.

For product-based sectors, the 'delta of impact' possible over the long term through products is among the most important sustainable development opportunity available. Engagement on SDGs 7, 12 and 13 – which systemically interlink – is critical to how this portfolio will influence and invest for impact. The 'nexus of SDG impact' is predicated on two factors: the carbon, waste and wider environmental impacts inherent to product lifecycles (including customer use and disposal); and the sustainability, resource use and social impacts of value chains that create, deliver or use products. Value chains that adopt models of highly sustainable management, production and use of products and materials in socially equitable ways *will* drive substantial external benefit.

There was, however, a notable shift in the second half of 2020: we had deeper engagements on gender equality (SDG 5) and decent jobs through inclusive growth (SDG 8). On the latter topic, 35 of 58 engagements tied to SDG 8 happened in the final six months of the year, reflecting the increased attention these themes received portfolio-wide. In 2021, we will focus on the social impact that employers across sectoral value chains can drive through workforces. In addition, we think companies in all sectors have an opportunity to improve long-term recruitment and retention performance through human capital strategies that focus on inclusive, enduring employment and fairly treated workforces. We expect to heighten our engagement on issues of decent work, gender and racial equality in workforces in 2021.

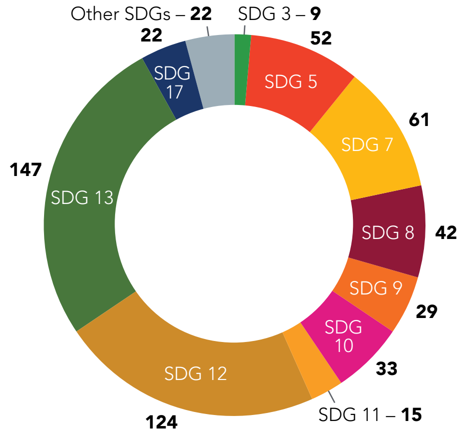
Engagement on SDGs 7, 12 and 13 – which systemically interlink – is critical to how this portfolio will influence and invest for impact.

Figure 15. 2020 engagements: top 10 SDGs engaged



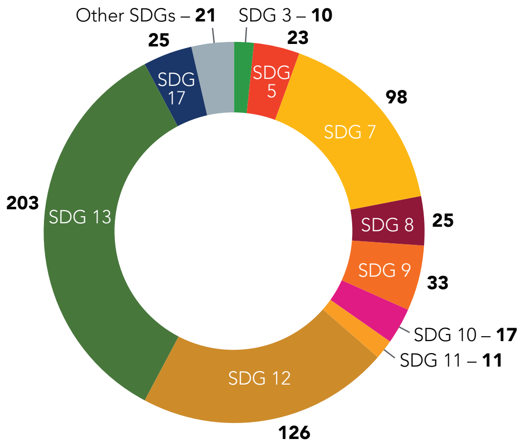
Source: Federated Hermes, as at 31 December 2020.

Figure 16. Engaged issues in 2020 (by top 10 SDGs)



Source: Federated Hermes, as at 31 December 2020.

Figure 17. Engaged objectives in 2020 (by top 10 SDGs)



Source: Federated Hermes, as at 31 December 2020.

SDG engagement in action

13 CLIMATE ACTION	**Take urgent action to combat climate change and its impacts** **207 engagements**	In December 2020, we completed our objective for **Enel** to disclose a comprehensive plan for phasing out coal-fired generating assets. We raised concerns alongside CA100+ in early 2019, and in late 2020 the company brought forward its coal-fired power asset closure deadline to 2027. It expects far lower utilisation rates before this as it transitions to lower-carbon alternatives. Some coal-fired facilities are being converted into natural gas assets, with a longer-term ambition of green hydrogen as a fuel.
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	**Ensure sustainable consumption and production patterns** **167 engagements**	We commenced engagement with **Huntsman** in 2020, and set the objective of identifying targets for emissions reductions, including Scope 3 emissions in customer use of products. As a value-adding chemicals firm, the company already produces a series of carbon-abating and energy-efficiency finished products, such as modern building insulation made from recycled substrates. We believe the company has the scope to do much more to help reduce emissions for some of its key customers over the next decade.
7 AFFORDABLE AND CLEAN ENERGY	**Ensure access to affordable, reliable, sustainable and modern energy for all** **108 engagements**	Although **Clearway Energy** is one of the most promising renewables developers in the US, it has not yet has provided subsidiary-specific reporting on carbon emissions, nor explored how to disclose whether it is reducing emissions enough to fulfil a science-based target. We have set an objective for full emissions reporting and proof of alignment with a Paris-aligned pathway.
5 GENDER EQUALITY	**Achieve gender equality and empower all women and girls** **65 engagements**	We raised workforce gender and ethnic equality with **AES Corporation** because we believe a war for renewables talent could make recruiting in utilities more challenging in the near future. A proactive strategy for a pipeline of diverse talent will widen its accessible pool of future talent while demonstrating a long-term aim of creating an inclusive workforce for all employees. We have set an objective for this, since the company does not have goals related to ethnic and racial diversity, but is aiming for at least 30% gender diversity in its management by 2022.
8 DECENT WORK AND ECONOMIC GROWTH	**Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all** **58 engagements**	**Akbank** is a key lender to individuals and small and medium-sized enterprises (SMEs) in Turkey. We believe there are opportunities for sustainable development and employment in the Turkish economy (including inclusive entrepreneurship, financing underserved SMEs, further lending for renewables projects and financing adaptation for climate-related risks in the region). In 2020, we set an objective for it to disclose quantitative performance and targets for sustainable lending, which show how the bank is performing relative to its total loans and deposits activity, as it evolves its strategy for the 2020s.
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	**Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation** **53 engagements**	**Suzano** is investing resources in shifting its business model over the long term to focus on where it can add value in biomaterials and sustainable raw materials, including the potential for lessening dependence on non-renewable products, such as mixed-materials and unrecyclable materials, which employ pulp and plastics. We will continue to engage to understand its R&D strategy in detail, and in 2021 we may set an objective which aims to have the company quantify shifts from traditional pulp and paper applications to sustainable product opportunities over time.

SECTION 4

SDG impact in focus

4a. Sustainable metals: a future foundation of clean economies

Jake Goodman,
Engagement Manager,
Fixed Income

Anna Chong,
Lead Analyst

Metals are the building blocks of our global economy. Metal is used everywhere, from girders for skyscrapers to the chassis of electric cars. The process of creating end products from metals is characterised by heavy industry, including mining, refining, smelting, processing into a semi-finished product and finally into finished capital and consumer goods. At the most basic level, the sustainability of this industry will improve through increasingly circular rather than linear production methods, and the elimination of negative environmental and social impacts as far as is feasible.

Which SDGs?

The production of metals is relevant to many SDGs. SDG 6 is about ensuring everyone has access to water in the quality and quantity required. Water availability varies significantly by geography. Areas are classified by their water-stress level and this is an important consideration when analysing a company, as high water consumption is more relevant in areas with severe water stress. Quality is about ensuring people have water that is safe to use and is not polluted. Production of metals requires water, mainly for cooling. Although we cannot eliminate the need for water, metals companies can put in place measures to reuse water, to treat water that will be discharged to a safe standard and to pay particular attention to water availability in the areas where they operate.[9]

Goals 8.4, 9.4, 12.2 and 12.5 focus on using resources more efficiently and with far less environmental degradation. We look across the metals value chain to see how each stage in the process can improve along these lines. We need these materials for the decarbonising sectors of the future, but we need them to be supplied in a sustainable manner. This includes managing and limiting land degradation from mining, optimising greenhouse gas emissions from processing, and maximising the safety of a fairly treated workforce throughout the process.

Figure 18. Where can metal companies' value chains make the biggest contribution to the SDGs and indicators?

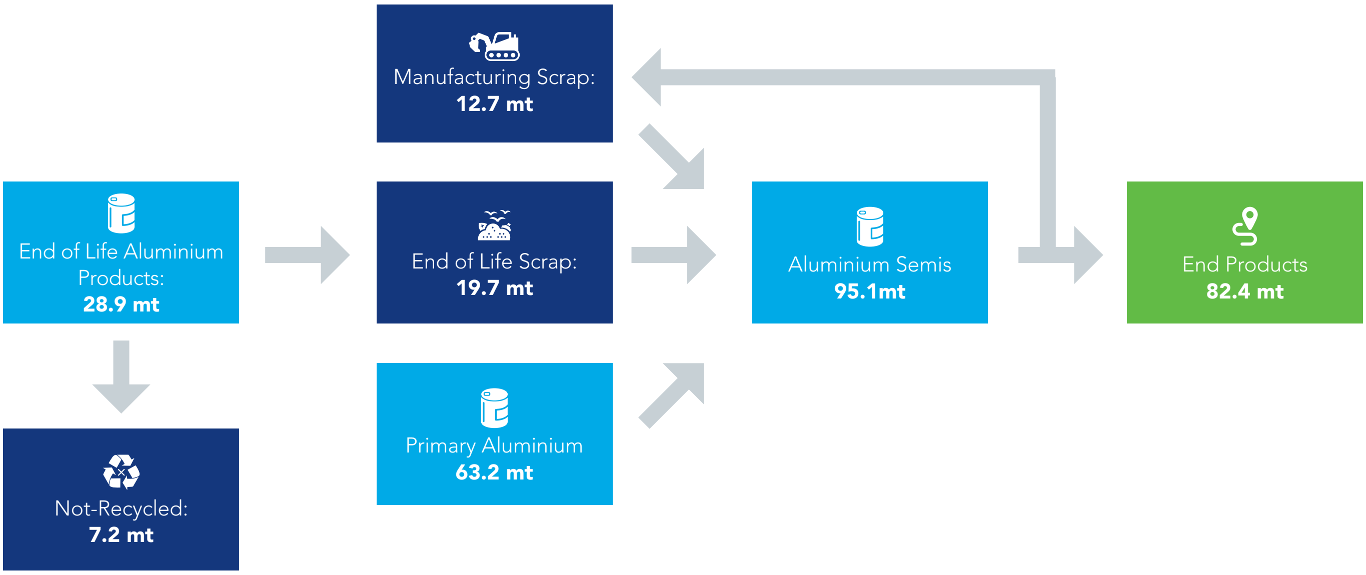
SDG target	SDG indicator
6.3 By 2030, improve water quality by reducing pollution, eliminating dumping, minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally.	**6.3.1** Proportion of domestic and industrial wastewater flows safely treated. **6.3.2** Proportion of bodies of water with good ambient water quality.
6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.	**6.4.1** Change in water-use efficiency over time. **6.4.2** Level of water stress: freshwater withdrawal as a proportion of available freshwater resources.
8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead.	**8.4.1** Material footprint, material footprint per capita, and material footprint per GDP. **8.4.2** Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP.
9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.	**9.4.1** CO_2 emission per unit of value added.
12.2 By 2030, achieve the sustainable management and efficient use of natural resources.	**12.2.1** Material footprint, material footprint per capita, and material footprint per GDP. **12.2.2** Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP.
12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.	**12.5.1** National recycling rate, tons of material recycled.

[9] A practical guide to consistent water reporting, The International Council on Mining and Metals, 2017
Source: Federated Hermes, as at 31 December 2020.

Closing the loop

Metals can be recycled an infinite number of times, are relatively straightforward to separate from waste streams and have an established supply chain to channel recycled material to producers. However, recycling rates are below where they need to be. Today, for example, around 34% of aluminium production uses recycled material. Recycling is not as straightforward as simply replacing virgin material with scrap. The varied nature of the sources means there are impurities and unwanted additions in scrap. These can be corrected during re-processing and this may often be worth the effort, because recycling uses around 5% of the energy compared to production from ore, and typically reduces associated emissions by 95%.[10] About 75% of the aluminium that has ever been produced is still in use. Therefore, even if all end-of-life aluminium were recycled, it wouldn't satisfy demand. That's why the production process itself must continue to evolve its inherent sustainability performance. Decreasing the emissions intensity of the core process is at the heart of this challenge.

Figure 19. Green aluminium: equities and commodities



Source: Federated Hermes, Citi Research, as at March 2021.

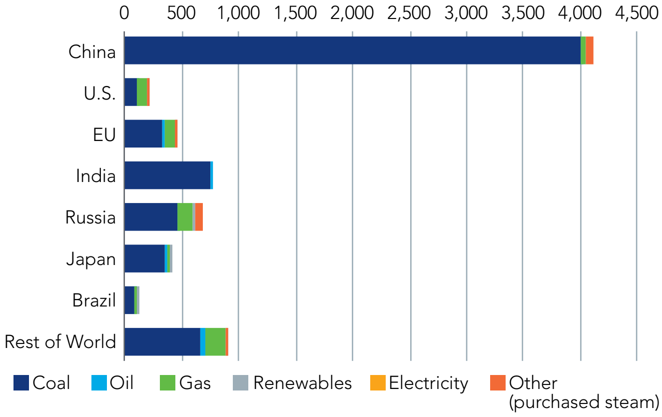
Cutting emissions

Some industrial processes are difficult to decarbonise, partly because of the huge amount of energy needed to reach required temperatures. For example, primary steel production requires high temperatures (>1,500°C) to both melt and reduce iron ore, typically in a blast furnace, which mostly relies on metallurgical coal to generate heat and as a reducing agent. An alternative production process using scrap in an electric-arc furnace process is also used, but there are constraints linked to raw materials that limit larger-scale applications at this point in time.

The lower heat requirements of aluminium (950°c for smelting) and its higher value mean that electricity is a more predominant heat source. This makes it easier to decarbonise by switching supply to renewables. The emissions profile of a particular company is influenced by its place in the value chain and its access to renewables. Generally, the further downstream a company is, the lower its carbon footprint.

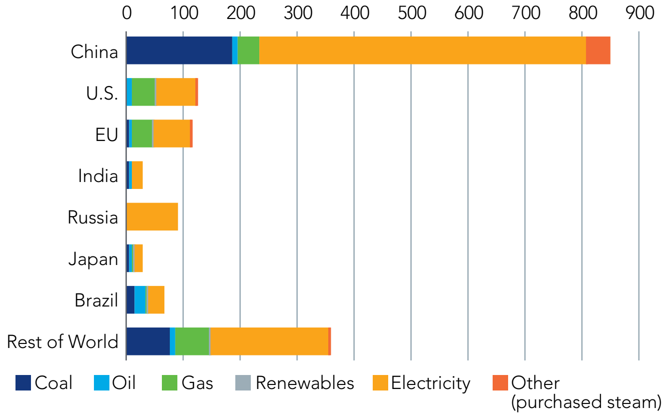
[10] Aluminium Recycling, The International Aluminium Institute (IAI), 2020

Figure 20. Iron and steel industrial heat (thousand TWh)



Source: BNEF, Industrial Heat: Deep Decarbonization Opportunities, as at 2019.

Figure 21. Aluminium industrial heat (thousand TWh)



Source: BNEF, Industrial Heat: Deep Decarbonization Opportunities, as at 2019.

How we engage

When analysing a metals company, we look at its investment in operational efficiency, its health and safety record, its research and development in new products and production methods, its greenhouse gas emissions, and the ambition of targets it may have set. In doing so, we therefore engage with metals companies across the world in different stages of the sustainability journey.

Alcoa

This US company aims to be the lowest-carbon aluminium smelter in the world. This goal is reflected in capital allocation, where emissions are an element of decisions in its asset-sale programme. Its strategy is backed by a commercially relevant approach to sustainability and a focus on adding value to products that may provide sustainability benefits to end customers, including low-carbon, high recycled-content aluminium offerings, in addition to the lower embedded emissions in end products due to the company's proportion of renewable energy use in overall product. The company has partnered with Rio Tinto and the Canadian government to commercialise a zero-carbon smelting process, ELYSIS, which is under development.

Engagement outlook

We would like the company to set a science-based emissions reduction target as this provides the clearest pathway to meeting the goals of the Paris Agreement. We would also like to see full TCFD-based reporting from the company.

Severstal

This Russian company has had problems with injuries and fatalities in the past, but has committed to comparable disclosures, which need to demonstrate improving health and safety performance, and aims to achieve ISO 45001 certification, the global international standard for occupational health and safety. Although it acknowledges the importance of ESG management, we believe it can show greater ambition beyond low hanging fruit. The company has indicated it will refresh its sustainability strategy in the near term. It provides detailed reporting on greenhouse gas emissions and has a target to reduce emissions intensity by 3% between 2020 and 2023.

Engagement outlook

The company has demonstrated a high willingness to engage with us over the past two years. Health and safety continues to be a priority issue in engagement. We have met with the chair of the board committee on health, safety and environment, who has held frank conversations on what is needed at board and management levels to improve performance.

Gerdau

Gerdau is the largest recycler of scrap steel in Latin America, which is possible because it uses electric arc furnaces as its main production method. Historically, it has been a sustainability laggard, but has improved dramatically in the past two years, including publishing its first ESG strategy and environmental policy. It has phased out family members from the management team and said it is looking at B Corp certification (a corporate legal requirement to consider the impact of decisions on workers, customers, suppliers, community, and environment)[11] and Carbon Disclosure Project-based emissions reporting. It is attempting to develop formal relationships with informal scrap pickers to provide a more stable source of income.

Engagement outlook

We are engaging with the company on further improvements to its anti-corruption and whistleblowing measures; longer term, we think it has potential to be a clean industry leader in Brazil. We aim to engage the company on when and how it can set its first climate change target in 2021.

[11] https://bcorporation.net/

> Almost anything can be connected to the internet for smarter, more efficient asset utilisation and optimised resource use, from washing machines to the thousands of cars moving across vast urban areas.

4b. Connectivity is the key: socioeconomic empowerment through telecommunications

Jake Goodman,
Engagement Manager,
Fixed Income

Joe Howes,
Lead Analyst

It has been 145 years since the first long-distance telephone line allowed a crackled message to be exchanged between two towns in Ontario, Canada. But it is only 32 years since Sir Tim Berners-Lee first presented his idea of a protocol to exchange information beyond speech over those same telephone lines: in other words, the internet. Since then, digital telecommunications development has been extremely rapid, but unequal in its geographic distribution. From education and health to personal safety and small business empowerment, telecommunications can enable social and economic inclusion for individuals worldwide. Moreover, the sustainability benefit extends beyond social impact: almost anything can be connected to the internet for smarter, more efficient asset utilisation and optimised resource use, from washing machines to the thousands of cars moving across vast urban areas.

Which SDGs?

We believe the telecommunications sector is well-placed to substantively impact socially aligned SDGs. Although the energy and hardware footprint of telecommunications infrastructure and devices is significant and growing, this service-oriented sector can drive decarbonisation through progressive sourcing of renewable electricity supplies: a luxury some product-based sectors do not have based on existing production technologies that employ fossil fuels. Moreover, it can retain a much higher degree of control over the infrastructure and customer devices it is responsible for. The energy and equipment footprint of firms in the sector is relatively small compared with product-based sectors.

Figure 22. How the telecoms sector can contribute to the SDGs targets and indicators

SDG target		SDG indicator
5 GENDER EQUALITY	**5.b** Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.	**5.b.1** Proportion of individuals who own a mobile telephone, by sex.
8 DECENT WORK AND ECONOMIC GROWTH	**8.10** Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all.	**8.10.2** Proportion of adults (15 years and older) with an account at a bank or other financial institution or with a mobile-money-service provider.
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	**9.c** Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.	**9.c.1** Proportion of population covered by a mobile network, by technology.
17 PARTNERSHIPS FOR THE GOALS	**17.6** Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation.	**17.6.1** Fixed internet broadband subscriptions per 100 inhabitants, by speed.
	17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology.	**17.8.1** Proportion of individuals using the internet.

Source: Federated Hermes, as at 31 December 2020.

We therefore conclude that telecommunications firms have potential for the biggest impact in the social arena, through several routes:

- Increasing network coverage (voice, data, mobile and fixed line) where it didn't exist before, at a cost that is flexible enough to be affordable for a wide populace.
- Providing handsets and equipment at a price point that makes them accessible to people who previously could not afford this upfront cost.
- Training for people who have access but are not technologically literate; for example, rural communities in developed and emerging economies with older populations, or entrepreneurs and small businesses with little experience connecting to customers and markets further afield using digital technology.
- Developing digital services to populations that remain underserved for basic life needs, such as remote healthcare, secure basic banking services, insurance to safeguard dependents in larger families, or microfinance for small business ventures.

It's about geography

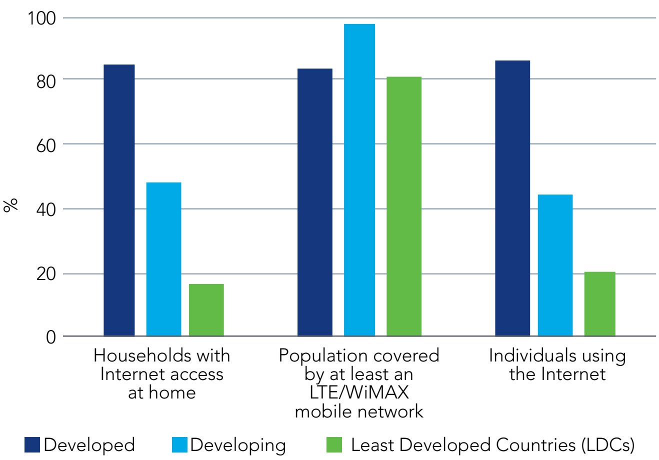
Geographic coverage is fundamental to assessing the likelihood and depth of contributions a telecommunications company could make to social SDGs. Companies focused on emerging-market services have vastly heightened impact potential for the opportunities we outline in this section. Although telecommunications companies in developed markets have similar opportunities, these do not have an equal global impact or 'delta', given the existing digital connectivity and penetration across many demographics in sophisticated telecommunications markets.

> **Sustainable digital inclusion refers to a society with a high level of access to digital products; with the skills to use digital products safely for personal, social and economic gain; with the opportunities to create innovative digital products; with all these activities carried out in an ethical and sustainable manner.**
>
> **- Digital Inclusion Benchmark, World Benchmarking Alliance, 2020[12]**

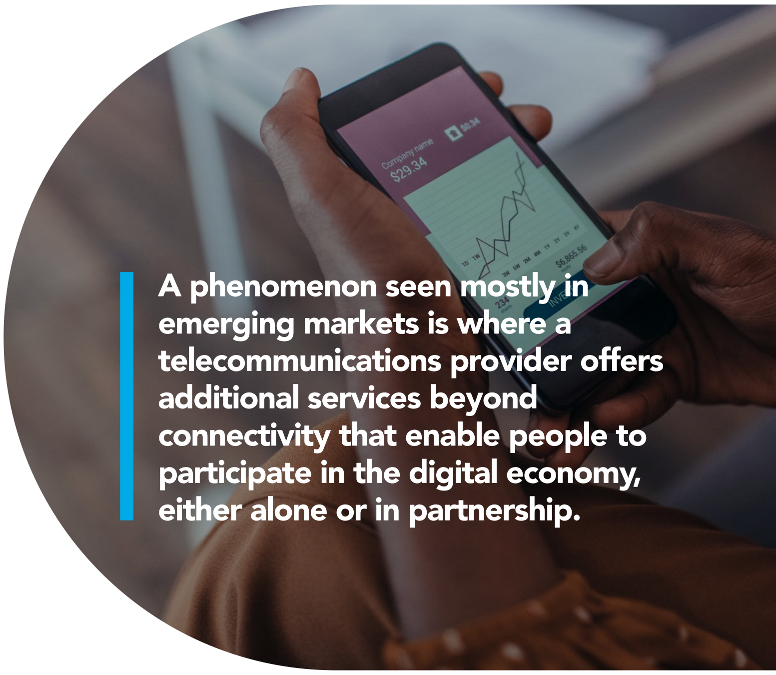
Emerging markets

In many emerging markets, fixed-line communications never reached some communities, having been overtaken by mobile connectivity. The proportion of emerging markets covered by mobile internet (3G or 4G) is reasonably good. However, the number of people *using* such services is far lower than in developed markets. This is because the cost of providing mobile coverage only varies slightly by geography, whereas consumer purchasing power varies hugely. It is estimated that around 51% of the world's population uses the internet, but Figure 23 illustrates that this is as low as 20% in the least developed countries.[13]

Figure 23. Access and use of the internet



Source: International Telecommunication Union, ITU regional global key ICT indicator aggregates, as at November 2020.



A phenomenon seen mostly in emerging markets is where a telecommunications provider offers additional services beyond connectivity that enable people to participate in the digital economy, either alone or in partnership.

Telecommunications businesses have a role to play in helping to achieve positive outcomes that are specifically defined by SDG indicators. When engaging a company with services in emerging markets, we examine whether its strategy aims to bring digital and voice services to people who previously had little access because of poor affordability, lack of resilient infrastructure or a combination of these issues. To drive greater impact, strategies should include a pointed focus on increasing both availability and affordability of coverage, handsets and digital services that are responsive to specific national or regional social needs.

We seek objective discussion with companies about the economics and challenges of this kind of strategy, and areas where it can (or cannot) make a viable economic case expanding infrastructure and services.

To drive greater impact, strategies should include a pointed focus on increasing both availability and affordability of coverage, handsets and digital services that are responsive to specific national or regional social needs.

A phenomenon seen mostly in emerging markets is where a telecommunications provider offers additional services beyond connectivity that enable people to participate in the digital economy, either alone or in partnership. For example, basic banking, mobile payments, insurance and healthcare are being provided to populations where this may have been problematic or unaffordable in the past. In countries where parts of the population are, for example, unable to open a bank account, these services can have a transformational effect.

[12] The World Benchmarking Alliance published its first Digital Inclusion Benchmark in December 2020 looking at 4 areas: improving access, enhancing skills, building trust to foster beneficial use, and innovating openly, sustainably and ethically. This is broadly aligned to how we look at the sector but with the emphasis changing according to geography.

[13] International Telecommunication Union, ITU regional global key ICT indicator aggregates as at November 2020.

Developed markets

Operators that serve developed regions, including North America and Europe, have an opportunity to rapidly decarbonise the electricity that powers telecommunications infrastructure. They also have the opportunity to build high-speed services for underserved communities and rural areas in developed markets, which have a narrower connectivity 'gap' to close than developing countries. These SDG themes differentiate our focus in engagement with developed-region operators, which includes ambitious decarbonisation of digital services, online safety, and greater regional equality of high-speed services needed for individuals and businesses outside urban centres.

We will further examine the SDG impact potential of these telecommunications peers in our H1 2021 Report, after a series of engagements with companies operating across developed markets have taken place.

How we engage

When engaging within the sector, geography is a key consideration, as outlined earlier. From this starting point, we seek to analyse its current strategy and performance in the context of where we believe outsized impact is possible. The potential we envisage forms the kernel of engagement, as it allows us to ask questions about how the commercial strategy will drive greater social impact for individuals and small businesses, alongside revenue growth over the long term.

> **Operators that serve developed regions, including North America and Europe, have an opportunity to rapidly decarbonise the electricity that powers telecommunications infrastructure.**

Telefonica

The company puts sustainability and social purpose at the forefront of its strategy. It has an approved science-based target for 1.5°C, aims to buy 100% renewable electricity by 2025 and plans to reduce emissions in its value chain. Its 'Internet for All' project has brought the internet to 700,000 people in South America, and it hopes to expand this initiative. Telefonica demonstrates advanced levels of disclosure as shown by its annual transparency report, detailing information requests from public authorities.

Engagement outlook

The company's work on most sustainability issues is best in class. We focus engagement on areas that are systemically challenging, such as the circular economy and digital privacy. We are also interested in how it can expand internet access for customers across its South American footprint, given its markers of success in affordable digital connectivity, which is appropriate for a wide spectrum of Latin American society.

Veon

With an operating footprint across Eurasian emerging economies, Veon is well placed to target SDGs focused on access to communications. It has active programmes to increase technological literacy and digital entrepreneurship. It has also attempted to quantify the social benefits of its services, which is rare to see from any company. Additional digital services are provided that can be transformational for underserved people, such as mobile-based bank accounts and health insurance.

Engagement outlook

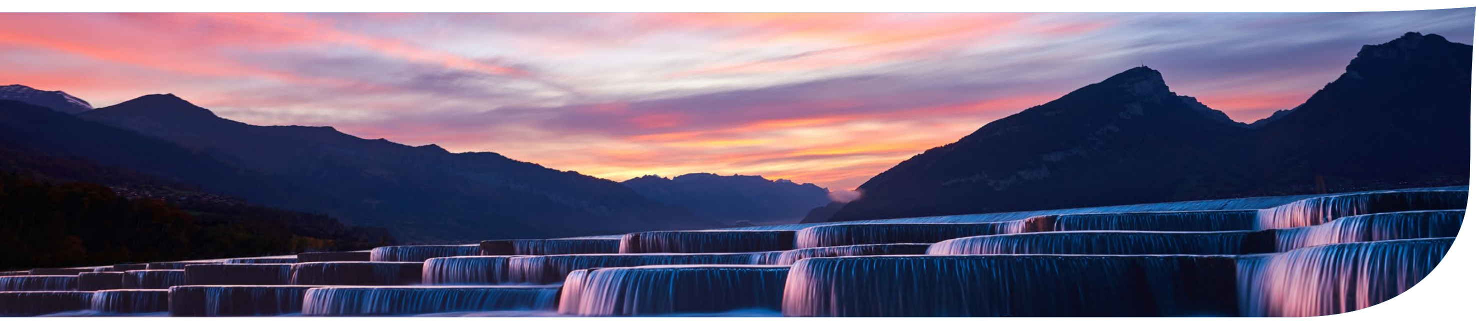
The company provides a variety of additional digital services, and we would like to see clearer disclosure of the potential SDG benefits that stem from this. Given the company's advanced sustainability work, we would also like to see it set a science-based climate change target.

Millicom

Millicom's presence in Africa and Latin America gives it ample opportunity for positive social impact through digital, financial and economic inclusion for individuals, small businesses and underserved communities or regions. The company has published a socioeconomic impact report, which demonstrates some of the impact it is having, and we believe this could expand to further illustrate social impact for several SDGs in quantified terms. The company has set targets around energy and end-of-life equipment recovery that indicates it is taking its impact seriously in this area.

Engagement outlook

In addition to setting science-based targets, we think the company could use its buying power to support the growth of renewable energy in the countries where it operates.



SECTION 5

Appendix

Appendix A. Summary of six-factor heuristic framework for SDG *ex-ante* scoring

Factors to assess	Some evidence of SDG *ex-ante* potential, but requires deeper engagement…	… to more certain SDG *ex-ante* potential, and requires less intensive engagement
1. Business purpose & strategy How are SDG-related opportunities reflected in the company's purpose and the strategy it articulates to investors and society?	There may be articulation of how the company benefits society, but this is not central to its vision or strategy. The company may mention contributions to the SDGs but does not yet illustrate how it may deliver such benefits, nor how they guide culture, strategy or execution.	The company is focused on how its actions benefit society, and this is part of its core strategy. The company articulates how it will contribute to achieving the SDGs in its corporate purpose and through its culture.
2. SDG-related benefits of products & services How are SDG-related benefits provided through products or services? Are these key to the value proposition for customers or society?	Little articulation of the social or environmental benefits of products or services. Products or services with SDG-related benefits may not generate significant revenues today but might in the future. Engagement may be required to validate potential benefits.	Strong articulation of the social and/or environmental benefits of products or services. Value propositions are intended to deliver SDG-related outcomes. These may already generate substantial revenue.
3. SDG-related impact of operations How is the company driving SDG-related benefits through its operations, across the environmental and social dimensions within its control, or through its influence over its value chain?	Weak articulation of how the company's operations have a positive or negative impact. Intensive engagement may be required to determine the future potential for greater positive impact.	Material operational impacts are disclosed in positive and negative terms and how these may be improving over time. The company may exhibit leadership on some impacts relative to peers or has time-bound targets for a range of social and environmental risks and opportunities.
4. SDG-related capital allocation Is the company allocating capital to invest in growing products or services with SDG-related benefits? Has the company disclosed or quantified this?	Less disclosure of capital allocations to products or services with SDG-related benefit, or to investments which deliver impact through operations. Future opportunities are difficult to identify prior to engagement.	Disclosed capital allocation includes clear priorities for products and services with SDG-related benefits, or delivery of positive SDG impact through its operations.
5. Evidence & disclosure of SDG outcomes What SDG-related outcomes has the company, its customers or society realised? Have ESG or SDG impacts been quantified and disclosed?	Little evidence to demonstrate how the company is contributing to SDG-related outcomes for customers or society in quantified or qualitative terms. Disclosure may be a key area for engagement.	Ample evidence to demonstrate contributions to SDG-related outcomes for customers or society. Some quantification for incremental or total impact over time. The company explains its methodology for measuring such outcomes.
6. Engagement insight What have we learned from engagement in the past, and what is our engager's assessment of the company's future potential for impacting SDGs?	Demonstrates interest in engaging on SDG-related matters or opportunities, but this is unlikely to influence the business in the short term. Longer-term potential may exist, but significant barriers are apparent through engagement. More engagement is required to develop insight here.	Open to engagement dialogue and constructively acts on feedback and advice. The company actively applies the SDGs as a framework for informing its strategy, and will continue to build on opportunities for sustainable development.

Appendix B. SDG *ex-ante* score definitions

Here we present the extensive definitions of our SDG *ex-ante* scoring framework:

SDG score 1

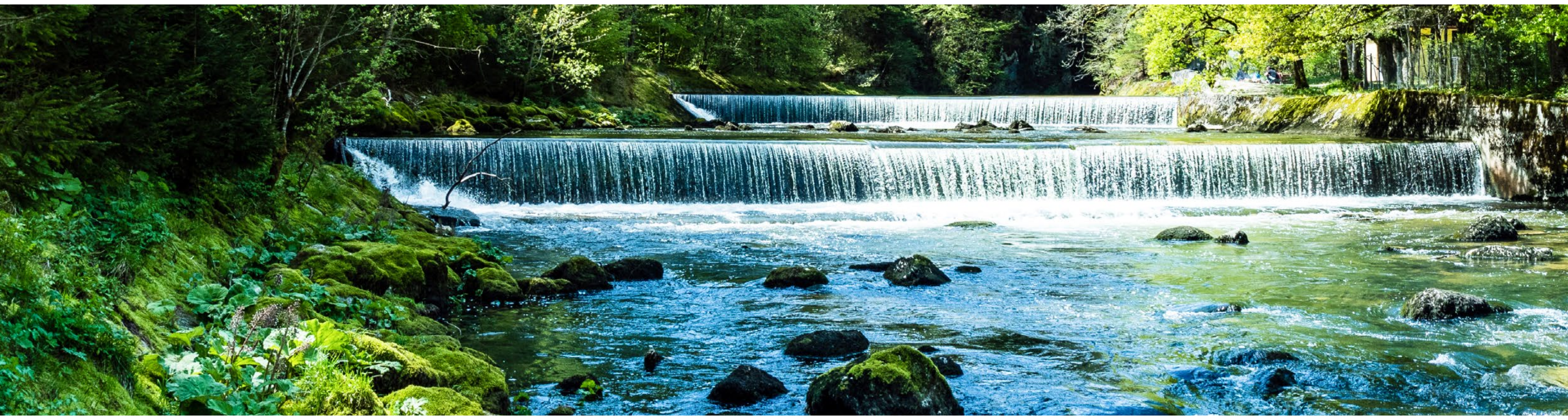
Impact Exemplar

The company clearly articulates, through vision and strategy, how it will contribute to sustainable development, and can describe how it will deliver long-term, sustainable benefit to customers and societal and environmental stakeholders. In its business model, the company strongly articulates the social or environmental benefits of a rapidly growing proportion of products or services; value propositions and customer benefits are intended to deliver sustainable development outcomes. Products or services with SDG-related benefits will generate substantial revenue or already form a significant part of the company's growth. In how it operates, the company discloses material operational impact in positive and negative terms and how these are improving or will improve through ambitious targets, in a comparable way. SDG-related impact through improvement is evidenced. The company may exhibit leadership on some impacts relative to peers and has time-bound, relative targets set. Capital allocation includes development of products and services with SDG-related benefit and/or operational impact as a priority. This is disclosed. There is a range of disclosures to demonstrate that the company is contributing to SDG-related outcomes for customers or society with quantification and explained methodologies. The company is open to a two-way engagement dialogue, and if necessary, constructively seeks guidance on internal and external change.

SDG score 2

Credible High Potential

There is articulation of how the company benefits society, and this may be a significant factor in vision and strategy. The company identifies contributions to sustainable development and can describe how it will deliver sustainable benefits to customers and stakeholders. The company articulates social or environmental benefits of some products or services. This is part of value propositions and customer benefits. Products or services with SDG-related benefits may generate notable revenue. The company articulates its material operational impact on society and environment in quantified terms (positive and negative), and how these may be improving. Some metrics are comparable to peers. SDG-related operational impact is evident through some history of improvement. Some impacts may show clear evidence of superior performance compared with peers, with evidence of relative target-setting. The company has disclosed some evidence of capital allocation in products or services or operational factors with SDG-related benefits. Future opportunities exist that could increase this. In disclosure, there is evidence of contribution to SDG-related outcomes for customers or society, and some are quantified to demonstrate incremental or total impact. The company shows credible willingness in engagement and seeks guidance and dialogue on how to effect internal or external change.



SDG score 3

Aspiring for impact

There is some articulation of how the company benefits society, and this may be one of several factors in vision and strategy. The company identifies contributions to SDGs in its purpose, but this does not thoroughly articulate how it might deliver long-term, sustainable benefits. The company articulates some social or environmental benefits of a subset of products or services. This is part of value propositions and customer benefits but may be secondary. Products or services with SDG-related benefits generate some revenue. The company articulates some quantified SDG-related operational impact, and how its operations have improved, but evidence may be weak or difficult to compare year-over-year or to peers. There may be a limited set of improvement targets. There is anecdotal evidence to support capital investment in products or services with SDG-related benefits, and the company may disclose selected capital or operating expenditures. Future opportunities exist for increasing this. In disclosure, there is some evidence to demonstrate that the company is contributing to SDG-related outcomes for customers or society. Outcomes may be quantified, even if absolute rather than relative. The company demonstrates interest in engaging and is considering how to change its business or practices.

SDG score 4

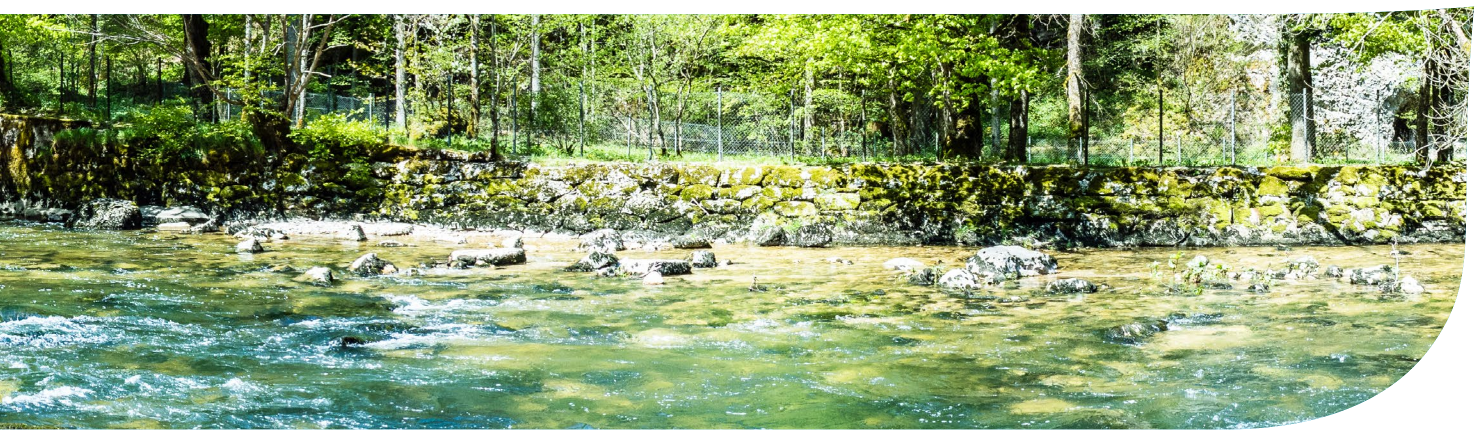
Paper promises

There may be articulation of societal benefit, but this is an afterthought in strategy. The company does not fully exhibit a purpose that shows how it could deliver SDG-related benefits. The company may mention social or environmental benefits of products or services, but this is an afterthought to value propositions today. Products or services with SDG-related benefits generate little revenue. The company may articulate its SDG-related operational impact in qualitative terms. It remains difficult to quantify impact or make comparisons. There may be one or a few improvement targets, even if they are in isolation (for example, x to y) rather than relative (for example, a percentage reduction). There may be evidence to support capital investment in products, services or operations with SDG-related benefits, but the company does not disclose specific allocated capital or operating expenditure. Future opportunities are uncertain. In disclosure, there is limited evidence to demonstrate that the company is contributing to SDG-related outcomes for customers or society; outcomes are not quantified. The company demonstrates some interest in engaging but is unlikely to change its business or practices in the short term. Longer-term potential may exist, but strategic or organisational barriers remain. The company is ambivalent in engagement.

SDG score 5

Unlikely and indifferent

There is no articulation of benefits to society, nor a corporate purpose that articulates how the company might deliver SDG-related benefits. The company does not articulate social or environmental benefits of products or services. There may be evidence to indicate that these cause negative impacts. There is poor articulation of how the company's operations have a positive or negative impact relative to peers or in absolute terms. There may be evidence of material negative impact from operations. There is no disclosure of capital allocated to developing products or services with SDG-related benefits. Future opportunities are difficult to identify. In disclosure, there is little evidence to demonstrate that the company is contributing to SDG-related outcomes. The company demonstrates no willingness to engage or displays antipathy.



Appendix C. Engagement outlooks

We publish two engagement stories from the SDGHY portfolio each quarter. Please find two included here on Netherlands-based semiconductor design and manufacturing company, NXP (published in Q4 2020), and American manufacturer of metal packaging, aerospace, scientific and engineering technologies and services, Ball Corporation (published in Q2 2020).

ENGAGEMENT CASE STUDY:

NXP Semiconductors

Joe Howes
Credit Analyst

Jake Goodman
Lead Engager

Federated Hermes SDG Engagement High Yield Credit

NXP is a Netherlands-based semiconductor design and manufacturing company, with leading positions in the automotive, security and internet of things (IoT) end markets. The company operates mainly through its High Performance Mixed Signal segment and benefits from a portfolio of over 9,000 patents.[1] Of its 29,000 employees, 60% of its workforce is based in Asia Pacific.[2] It has nine major front-end manufacturing, assembly and test sites around the world and operates in 30 countries.[3]

Investment case

NXP benefits from its broad end-market exposure, which covers the automotive, mobile phone, telecommunications infrastructure and industrial markets. This diversification helps the business reduce the volatility in sales that could stem from economic change in its end markets. In addition, NXP derives most of its sales from core markets that are experiencing secular growth (in other words, growth driven in a sector by fundamental, or intrinsic, changes). This includes the automotive segment, which accounts for half of its sales, and industrials, which makes up about a fifth.

Although the global pandemic had a material impact on earnings in the first half of the year, signs of recovery in the second half were apparent from the third quarter. This supports our view that NXP is well positioned within its core markets to benefit from these secular trends over the medium-to-long term. We expect growth in automotive semiconductor content and also for NXP to gain market share, both of which should offset the greater volatility associated with the company's exposure to the industrial and IoT segments.

Given the industry in which NXP operates, high levels of investment – research and development (R&D) and capital expenditure – are common. Although NXP reports investment levels of about 20%-25% of sales, this is in line with its broader semiconductor peers. However, NXP outsources a significant portion of its manufacturing, assembly and testing, which allows the business to maintain relatively low levels of capital expenditure.

NXP benefits from its broad end-market exposure, which covers the automotive, mobile phone, telecommunications infrastructure and industrial markets.

[1] '2019 NXP corporate sustainability report', published by NXP Semiconductors in 2020.
[2] Ibid.
[3] 'NXP Semiconductors N.V. 10-K', published by NXP Semiconductors in 2020.

Finally, despite the significant investment requirements, we take comfort in the fact that NXP generates high levels of cash. The firm has solid free cash flow (this is the cash available for the company to repay creditors or pay dividends and interest to investors) and strong free cash flow margins (this is free cash flow as a share of sales) throughout the economic cycle.

At present, NXP's financial policy includes an annual dividend to investors and a share buyback programme (this is when the firm buys back shares from the market). However, the buyback programme was paused at the start of the year in response to market uncertainty, which shows that NXP has a good degree of flexibility and can support its balance sheet (in other words, its balance of assets and liabilities) if required.

Engagement context

Semiconductors pose a contradiction when it comes to sustainable development. On the one hand, many environmental and social improvements are supported by new technologies that would not function without semiconductors. Electric vehicles (EVs), renewable energy technologies, precision agriculture systems, smart city infrastructure equipment and supercomputer-driven climate modelling are just a few examples of technologies that have semiconductors at their foundation.

Yet the semiconductor and related electronics manufacturing processes also use vast quantities of water and require the use of up to four regulated, reportable conflict minerals. The process also uses *and* emits all of the gases covered by the Kyoto protocol (an international treaty to reduce greenhouse-gas emissions) that are known to cause global warming, thus contributing to the climate crisis.

Technological advancement is self-reinforcing. As a new technology becomes more effective and reliable, a rising number of consumers start using it, and more money is invested in R&D, production and unit costs decline through scale and development, and so on.

EVs are an excellent example of this. In the next few decades, vehicles that rely on fossil fuels will be consigned to history. EVs use semiconductors in high volumes, including in the components that generate power and movement, battery management systems, safety radars and mobile connectivity systems. Although it started from a low base, EV demand has grown exponentially over the past decade, driven by lower costs, significantly improved battery technology and supportive regulation. As the total operating cost of EVs approaches parity with that of internal combustion-powered vehicles, consumer and commercial demand is very likely to rapidly increase.

NXP is the one of the world's largest suppliers of automotive semiconductors, with an 11% market share.[4] It benefits from the switch to EVs, but also helps to drive the trend because its technology – and the associated decline in cost – is a key factor behind the recent improvements in vehicles.

While the benefits of the technologies enabled by semiconductors are clear, the production process is fraught with negative impacts that must be carefully managed. The primary manufacturing process for semiconductors is highly complex, with about 300 individual steps.[5] Toxic chemicals are used for cleaning, Perfluorocarbons (PFC) are used to etch circuits, water is used for cooling and precious metals create circuits and connections. The electronics industry also has a reputation for poor working conditions in manufacturing, particularly in Asia.

While the benefits of the technologies enabled by semiconductors are clear, the production process is fraught with negative impacts that must be carefully managed.

[4] 'NXP Semiconductors Driving in the Fast Lane – Transferring Coverage at Market Weight', published by Barclays in 2019.
[5] 'NXP Semiconductors N.V. 10-K', published by NXP Semiconductors in 2020.

SDG-focused engagement

Minimising negative impacts from operational emissions
SDG 13

Semiconductor manufacturing results in indirect emissions that arise from the energy required to power the facilities where they are produced. In addition, the process also uses gases that have a high potential to cause global warming. Some gases are used when manufacturing integrated circuits, while others are used in cooling and to test devices. There is generally no alternative to these gases, so it is essential that semiconductor companies reduce their use where possible and implement closed systems so that no gases are released into the atmosphere. The most important of these chemicals is PFCs, as semiconductors cannot be made without them.

Switching and reducing

NXP has reduced its use of PFCs by 45% since 2006 and its overall greenhouse-gas emissions by 18% on an absolute basis.[6] The company continues to find ways to improve on this, including by optimising production processes and switching to alternative chemicals where possible. Importantly, it is part of two industry initiatives seeking to collaborate to bring this down further. We will continue to engage with the company on how it can reduce its overall carbon intensity in line with the pathways implied by the Paris Agreement (an agreement to limit global warming to well below 2°C above pre-industrial levels). We will also engage on how it can develop innovative methods to minimise or eliminate emissions released in production.

Building water resilience as scarcity risks increase
SDGs 6 & 12

Another fundamental input for semiconductors manufacturing is water. In any location, there are competing interests for water – including its use as drinking water for local populations. Precipitation patterns are changing with climate change,[7] which means that manufacturing plants may operate in locations where water is scarcer in the future. It is important for companies to assess the quantity of water needed, the quality of water discharged, and what may be required to build manufacturing and community water-supply resilience in production locations with increasing scarcity. Failure to do so can impair a company's social licence to operate, or place hard limits on production capacity if finite supplies of water are restricted.

Redesigning processes to conserve water

In 2019, NXP used 10.8bn litres of water. It has facilities around the world, including three in areas with extreme water stress. The company has proved that it can significantly reduce its water requirements at individual facilities in response to water stress. This gives us confidence in its ability, but it remains to be seen if this can be replicated at other sites. Since 2006, its absolute water consumption has fallen by 3.2%, while normalised consumption (which accounts for changes in production levels by looking at water consumption per metre squared of silicon wafer) has fallen by 13% since 2010. NXP aims to reduce normalised consumption by 30% by the end of 2020.

Transparency on fair working conditions
SDG 8

Manufacturing semiconductors is a highly technical process that requires a skilled workforce. However, it can be repetitive and happens out of sight of the downstream supply chains (in other words, the bodies that sell the end product). This means that the risk of poor labour conditions is increased. In addition, it has a long supply chain (the network of people and organisations involved in the creation of a product) that is susceptible to human rights abuses. Semiconductors require four regulated conflict minerals – tin, tantalum, tungsten and gold – that are associated with human rights abuses during mining and extraction.

A good track record

The company has a good record for health and safety in its own operations and its injury rate has trended down for many years, which compares favourably to the rest of the industry. It also publicly discloses the number and status of reports received by the company's ethics committee, which demonstrates a high level of transparency. NXP has gone beyond its legal requirements for conflict minerals by also reporting on its cobalt supply chain. However, we believe that supply chain transparency remains insufficient to meaningfully understand labour and human rights-related risks across sectors, including in semiconductor manufacturing. As a result, we want to understand how NXP can evolve how it discloses its auditing and supplier management practices and results.

[6] '2019 NXP Corporate Sustainability Report', published by NXP.

[7] 'Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change', by the Core Writing Team, R.K. Pachauri and L.A. Meyer (eds., published by the IPCC in 2014.

Providing foundations of sustainable technologies

SDGs 7, 9, 11 & 12

The possible applications for semiconductors are almost infinite. The solution to most sustainability challenges lies in three interlinked areas: behavioural change, policy change, and technological advancement. New technology, with semiconductors as a building block, enable us to do things more quickly, more safely and with far fewer natural resources. With that in mind, semiconductors have a role to play in achieving a significant subset of the Sustainable Development Goals.

Exposure to key sustainability trends

NXP's products can be found in many end products that have considerable environmental and social benefits: smart building controls, sensors for monitoring farming conditions, critical medical equipment, bike sharing security, efficient motor control for washing machines, battery management for electric vehicles and safety radar systems. It is one of the leading semiconductor suppliers to the automotive sector and benefits from the secular trend towards greater EV use and the increasing technological content of all vehicles. We seek to understand how important the global imperatives of carbon reduction and increasing resource efficiency are for the long-term growth of the business, and how the company has aligned its R&D spending to address these key demand drivers.

ENGAGEMENT CASE STUDY:

Ball Corporation

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Federated Hermes SDG Engagement High Yield Credit

Ball Corporation (Ball) is an American manufacturer of metal packaging, aerospace, scientific and engineering technologies and services. The company, incorporated as the Ball Brothers Glass Manufacturing Company in 1886, is famous for pioneering home-canning jars. It exited the glass market in 1996 and is now one of the world's largest manufacturers of recyclable metal containers, serving the food, beverage, household, personal care, electronics and paint markets. Headquartered in Broomfield, Colorado, it has over 18,300 employees and more than 100 global production facilities.

Investment case

Ball is more disciplined than its peers when it comes to balancing shareholder remuneration with capital expenditure, and its leadership in sustainability makes it a holding of choice. Speciality cans (which tend to have higher margins) have grown from 30% of the business in 2016 to 46% this year, a trend that is likely to continue and which should support growth. Innovative substitutes to plastic – the aluminium cup, and aluminium can in the premium water market – could also support longer-term growth of volumes and profit margins. Aerospace remains a growth story – as opposed to the commercial aviation industry, which has been affected by the coronavirus pandemic – and Ball benefits from the fact that almost all of its revenue in this area comes from government agencies. Ball maintained its 2020 guidance – albeit it with a €100m reduction due to working-capital drag – which stands in contrast to its competitors and highlights its transparency towards stakeholders.

Engagement context

Metal beverage packaging made up 79% of Ball's revenues in 2019. Metal packaging retains a very high degree of commercial value at the end-of-life stage due to its relative recyclability, which allows it to be transformed into new material with minimal degradation compared to alternatives like plastics. Although recycling rates vary globally, aluminium is among the most recycled of all materials and enjoys a diversion rate of 72% in the UK and 99% in Germany[1]. A study of households in Beijing found that 62% of beverage cans were collected, despite a partial dependence on informal recycling economies that are driven by waste pickers and merchants.[2] Similar recycling patterns are common in steel packaging, with a 71% diversion rate for steel cans in the US in 2017.[3]

This document does not constitute a solicitation or offer to any person to buy or sell any related securities or financial instruments.

But metal packaging also faces complex sustainability challenges. Despite light-weighting innovation, it can be heavier than equivalent plastics, which results in higher greenhouse gas (GHG) emissions during the logistics and handling phases. The 'full lifecycle' emissions of *recycled* metals are attractive when compared to plastics, which degrade when recycled and have very poor diversion rates globally. However, *virgin* metal production (bauxite mining and subsequent smelting) has a higher energy intensity, lifecycle GHG emissions and environmental impact than alternative virgin materials like plastics. Indeed, one study found that virgin aluminium for cans had a carbon impact that was four-times heavier than that of virgin PET plastic for bottles.[4]

Nonetheless, similar evidence indicates that recycled aluminium can deliver lower GHG emissions on a lifecycle basis compared to virgin or recycled PET plastic. Moreover, plastics suffer from knock-on problems introduced by waste with poorer diversion rates, such plastic leakage into waterways.

As a result, we think it is a strategic imperative for Ball to maximise its use of recycled metal in production, work with suppliers to minimise emissions and the environmental impact of virgin-metals sourcing, collaborate across packaging ecosystems in key markets to drive diversion rates closer to 100% over the long term and work with policymakers to support truly circular and increasingly closed-loop national and international strategies for metal packaging.

[1] 'Aluminium beverage can recycling hits 74.5% in Europe', published by PackagingNews on 15 October 2019.

[2] 'Urban household solid waste generation and collection in Beijing, China' published by Liu, T., et al in Resources, Conservation and Recycling, Volume 104 Part A, in November 2015.

[3] 'Facts and figures about materials, waste and recycling', published by the US Environmental Protection Agency.

[4] 'Closing the loop: four steps towards 100% aluminium packaging recycling', published by Green Alliance in March 2019.

SDG-focused engagement

The drivers of our SDG-aligned engagement with the company, and our objectives, are described below:

Maximising sustainability in metal material lifecycles
SDG 12

Aluminium refining, smelting and casting are energy intensive and carry considerable environmental impacts. Companies like Ball are downstream customers for this material, and these impacts therefore contribute to Scope 3 (value chain) emissions. For Ball, the metals it purchases make up 85% of Scope 3 emissions.[5] However, the company and its sector have historically made strategic use of recycled materials, which contributes to the sustainability of packaging and avoids end-of-life and recyclability problems associated with some alternative materials. For example, Ball explains that aluminium makes up 1% of the total volume of recyclable household-waste streams in the US, but 17% of the recoverable financial value from the same waste streams.[6] The environmental and economic incentives to maximise circular-economy development opportunities are clear.

Quantifying corporate progress

Ball highlights a 69% global recycling rate for aluminium cans, and also points out that most aluminium and steel ever produced is still in 'circular' use today (due to its attractive recyclability).[7] The company has set post-2020 sustainability goals to increase its own use of recycled raw inputs to a level beyond average developed-market recycling rates, as well as to contribute to measurement efforts in developing markets. However, the company does not indicate its current use of recycled metals in each market, which we believe it has the ability to disclose. It features a detailed and interactive key-performance-indicator dashboard on its global homepage to demonstrate progress on other measures of sustainability in operations, so we think this could be a natural future enhancement. Ultimately, this illustrates to stakeholders how Ball is moving closer to a nearly circular approach to packaging production over the long term.

Value-chain greenhouse-gas emissions
SDG 7 & 13

The world is at a critical juncture on climate change. We strongly support meaningful climate action from firms that are willing to make commitments and invest in goals and strategies which work not just inside the business, but across value chains. The Science Based Targets initiative (SBTi) helps businesses determine carbon-emissions reduction targets which align with the emissions reduction pathways implied by the Paris Accord to keep global warming below 2°C and provides independent validation of targets that qualify. However, as SBTi generally requires companies to consider supply-chain and customer-based emissions, deeper collaboration is typically required to achieve substantially greater energy and carbon efficiency in the upstream supply base. Moreover, when it comes to climate action in 2020, we note that investors are coalescing around expectations in a more urgent manner. As a result, we believe that manufacturing supply chains will face growing scrutiny on real or perceived lack of action.

Driving full scope ambitions

Ball originally aimed to decrease the emissions intensity of its beverage cans by 25% between 2010 and 2020. In March 2020, it announced that the SBTi had approved its plan to reduce absolute carbon emissions within operations by 55% and in its value chain by 16% in the years to 2030. Importantly, it has set these against a more ambitious 2017 baseline, which has previous accomplishments built in. We understand that this will be achieved through capital investment and renewables sourcing. The company's North American electricity is already 100% renewable, and it seeks this arrangement in Europe. We will engage the company on the details of how its Scope 3 supply-chain commitment can be achieved and the interim milestones that the company has set. Nonetheless, this is a highly positive development. We are keen to ensure that the company's leadership in this area does not go unnoticed by the sector and will ask how we may be able to help it achieve this.

Inclusive job creation
SDG 8 & 10

Manufacturing sectors are major employers around the world. However, companies with global production facilities and raw-material and mining supply chains that reach into the developing world are exposed to potential social risks. It is our belief that this is an opportunity to create fair, safe, reasonably remunerated and secure employment opportunities, which deliver considerable social value to individuals, families and communities. This goes beyond managing corporate, legal and reputational problems. Companies that are seen as an employer of choice are likely to have higher employee engagement, more productive and reliable operations and a valuable social licence to operate that assists rather than impedes customer wins and entry into communities of operation.

Strengthening social outcomes for a global workforce

In early 2020, Ball announced that it achieved Aluminium Stewardship Initiative (ASI) certification for performance and chain-of-custody standards for 23 plants in Europe, the Middle East and Africa.[8] It is the first metal-can manufacturer to do so.[9] Although many are in Western Europe, this notably includes operations in Serbia, Russia, Egypt, Poland and Saudi Arabia. Besides addressing governance and environmental standards, it specifically looks at a wide range of performance requirements based on globally sanctioned international human rights, labour rights and health-and-safety standards. We are particularly interested to engage on how Ball's approach to women's empowerment and community livelihoods (both of which form part of the performance standard) could evolve based on ASI certification and lessons learned, and what work the company might need to do to apply the standards in other locations.

[5] 'Ball Corporation Sustainability Report', published in 2018.
[6] 'Recycling', published by Ball.
[7] Ibid.
[8] 'ASI certifies 23 Ball Corporation plants in 18 countries against ASI Performance and Chain of Custody Standards', published by ASI on 5 March 2020.
[9] Ibid.

Appendix D. SDG Engagement High Yield Credit Hedged to USD GIPS® Composite

GIPS® Composite

Composite: **Federated Hermes Int'l SDG Engagement High Yield Credit Hedged to USD**

Index: **ICE BofA Global High Yield Constrained (USD Hdgd)**

Periods ending: **31 December 2020**

All information is quoted in USD

	Annualised Returns (%)		
	Composite Gross Return	Index	Composite Net Return (Assuming Maximum Fee)
Q4 20	6.23	6.52	6.06
1 Year	7.94	6.48	7.23
Oct 19 – Dec 20 (Annualised)^^	9.72	7.58	9.01

Annual Returns (%)									
Year	Composite Gross Return	Composite Net Return	Benchmark Return	*Composite 3-Yr St Dev	*Benchmark 3-Yr St Dev	No of Portfolios	**Dispersion	Composite Assets (Million)	Firm Assets (billion)
2019	4.04	3.87	2.90	N/A	N/A	<5	N/A	276.3	40.2
2020	7.94	7.23	6.48	N/A	N/A	<5	N/A	680.6	585.7

^^Represents composite inception period. See below for additional notes to the schedule of rates of return and statistics

*Represents the 3-year annualized standard deviation for both the gross composite and the index returns. Statistic is used to measure the volatility of composite returns.

**Standard deviation is calculated using gross returns. Dispersion is not applicable ("N/A") for any period if fewer than five accounts are in the composite for that period.

The composite includes all discretionary portfolios following the SDG Engagement Global High Yield Credit Hedged to USD strategy run by the Federated Hermes Int'l Global Credit team and has an inception date of 1 October 2019. The objective of the strategy is to exceed the return of the benchmark over a rolling five-year period whilst delivering positive societal impact aligned to the United Nations Sustainable Development Goals ("UN SDGs"). The strategy may invest in a broad range of assets, either directly or through the use of derivatives, (including, but not limited to, equities, equity-related securities, Eligible CIS and/or financial indices, futures, options, swaps, debt, fx and money markets). The strategy through its investments in FDIs may be leveraged. The composite's benchmark is the ICE BofA Global High Yield Constrained Hedged to USD Index, which is designed to measure the debt market performance of global high yield debt. The benchmark contains primarily USD and EUR issues. The Index is rebalanced on the last calendar day of the month and the return is calculated on a total return basis. This composite was created in November 2019. Performance shown for 2019 is for a partial period starting 1 October 2019. Federated Hermes claims compliance with the Global Investment Performance Standards ("GIPS®") and has prepared and presented this report in compliance with the GIPS® standards. Federated Hermes has been independently verified for the period of January 1, 1992, through September 30, 2020. The verification report is available upon request. A firm that claims compliance with the GIPS® standards must establish policies and procedures for complying with all the applicable requirements of the GIPS® standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS® standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report. The management fee schedule for this strategy is 0.65% per annum. Gross of fees returns have been calculated gross of management, custodial fees and reclaimable withholding taxes, but after all trading commissions.

Federated Hermes is a global, independent, multi-strategy investment management firm. For GIPS® purposes, Federated Hermes is defined to include the assets of registered investment companies that are advised or sub-advised by the various Federated Hermes advisory companies. Effective September 30, 2020, for GIPS® purposes the name of the firm was officially changed to Federated Hermes. Firm assets on this report exclude assets affiliated with Hermes GPE and the advisory-only, model-based assets that may be included in other reports providing total firm assets. Interest income and dividends are recognized on an accrual basis. Returns include the reinvestment of all income. All market values and performance information are valued in USD unless currency is denoted in composite description. Annual composite dispersion is measured and presented using the asset weighted standard deviation of the gross returns of all of the portfolios included in the composite over the entire year. Quarterly dispersion is measured using all portfolios included in the composite for that quarter. See the composite description language for a discussion on appropriate fees currently applied to calculate composite performance. Net composite results are based off model fees using the stated fee schedule. In addition, further fee information can be obtained from the firm's respective Forms ADV Part 2 Brochure Item 5. Additional information regarding the policies for valuing investments, calculating performance, and preparing GIPS reports, as well as a complete list and description of the firm's composites and pooled funds is available upon request. Past performance is not indicative of future results. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. See disclosures on the Schedule of Rates of Return and Statistics Reports for additional information.

Where the strategy invests in debt instruments (such as bonds) there is a risk that the entity who issues the contract will not be able to repay the debt or to pay the interest on the debt. If this happens then the value of the strategy may vary sharply and may result in loss. The strategy makes extensive use of Financial Derivative Instruments (FDIs), the value of which depends on the performance of an underlying asset. Small changes in the price of that asset may cause larger changes in the value of the FDIs, increasing either potential gain or loss.

The value of investments and income from them may go down as well as up, and you may not get back the original amount invested. Any investments overseas may be affected by currency exchange rates. Past performance is not a reliable indicator of future results and targets are not guaranteed.

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Federated Hermes International

Federated Hermes

Federated Hermes is a global leader in active, responsible investing.

Guided by our conviction that responsible investing is the best way to create long-term wealth, we provide specialised capabilities across equity, fixed income and private markets, multi-asset and liquidity management strategies, and world-leading stewardship.

Our goals are to help people invest and retire better, to help clients achieve better risk-adjusted returns, and to contribute to positive outcomes that benefit the wider world.

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- **Private markets:** real estate, infrastructure, private equity and debt
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