Net Zero: What is it and why does it matter to investments

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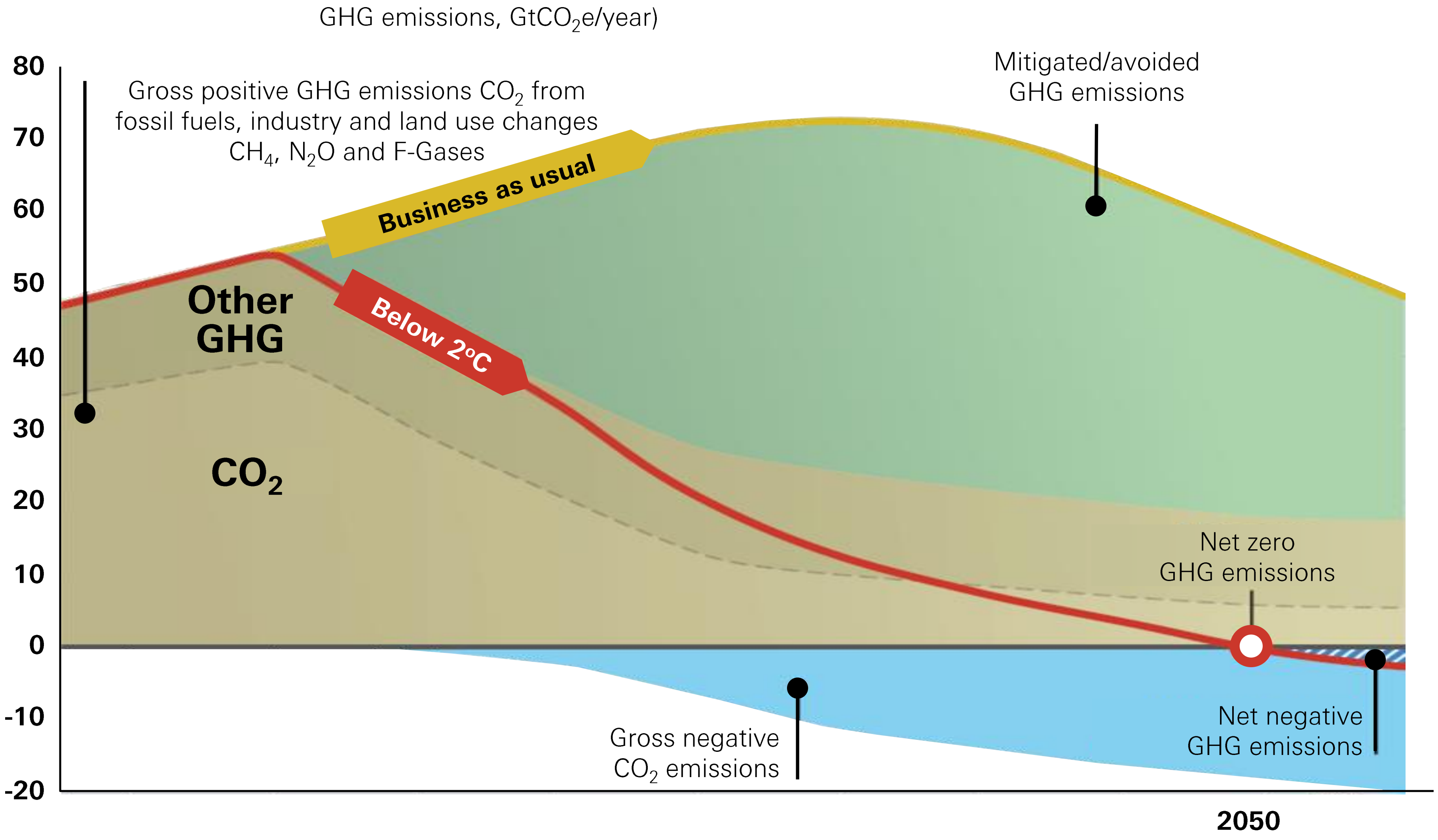
Agenda

Net Zero by 2050 is the new "Paris Agreement"

Defining net zero



- We have already passed the 1°C temperature increase
- At current emissions, the world is heading to a 4°C increase in temperature
- We have about 8 years of emissions left within the carbon budget that enables a 2°C world
- A sharp change in the global emissions profile is required, with ultimately Net Zero emissions

Kleinman Center for Energy Policy (Chart based on UNEP 2017)

International frameworks to define and support sustainability goals; climate is a key feature

- The Paris Agreement aims to limit the increase of **global temperatures to 1.5° C** compared to pre-industrial levels
- In this agreement, each **country** determines, plans and regularly reports its own **contributions** to mitigating global warming
- The Paris Agreements have spurred investors to look for ways to **decarbonise** their portfolios, support the energy **transition** and invest in **climate-related solutions**

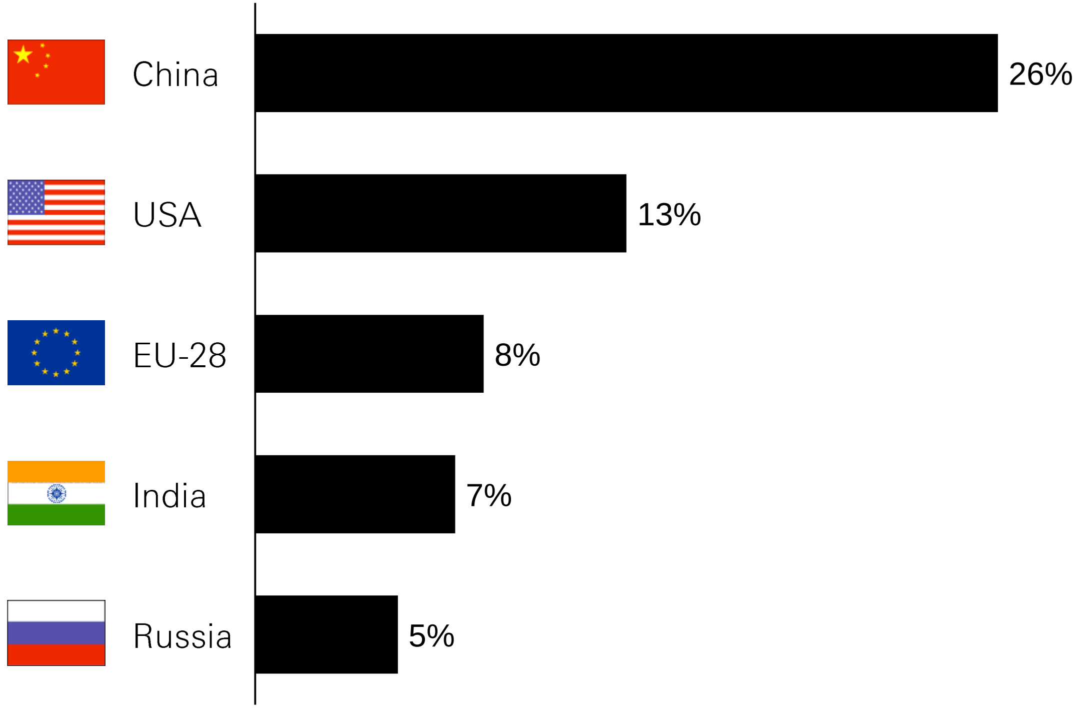
- The UN Sustainable Goals (SDGs) are a universal set of **goals, targets and indicators** adopted by all UN member states used as a blueprint to frame their agendas and political policies over the **15 years beyond 2015**
- They consist of **17 goals** that aim to transform the world by 2030

Key considerations for achieving global climate goals

- Need **45% decline** in global CO_2 emissions by 2030 and **'net zero' by 2050** to limit warming to 1.5°C
- Strong risk that climate related **financial risks** are **not fully reflected in asset valuations**
- Net zero emissions by mid-century is **technically possible** at a cost to the economy of less than 0.5 percent of global GDP
- A **'whole system' approach** is required; no single sector or country can go it alone

Countries are setting ambitions to align to Paris Agreement goals

% of global $GtCO_2$ emissions by country, top 5[1]



Climate ambition targets by country

- **China** announced it would achieve carbon neutrality by 2060 (or sooner) and peak it's carbon emissions by 203
- **US** has re-joined the Paris Agreement as of February 2021. The Biden Administration has set the ambitious goal to achieve a carbon pollution free power sector by 2035 and a net-zero economy by 2050.
- **European Union** aims to achieve carbon neutrality by 2050. The EU's Green Deal proposes to increase a reduction in emissions of at least 55% by 2030 as well as other initiatives to support the EU wide climate pledge.
- **United Kingdom** has set a net-zero target by 2050. The UK also recently set the ambition to cut emissions by 78% by 2035 compared to 1990 levels – this specifically includes its emissions from aviation and shipping.
- **India** has launched one of the world's most ambitious renewable energy programmes, with a goal of achieving 450 GW of renewable capacity by 2030.
- **Russia** has announced an ambition to reduce GHG emissions to 75% of 1990 levels or lower.

1. International Energy Association (2020)
2. UK enshrines new target in law to slash emissions by 78% by 2035 - GOV.UK (www.gov.uk)

A number of industries are also setting net-zero targets

Energy Sector

Shell, bp, TOTAL, EDF, enel, eni, equinor, REPSOL, Ørsted, IBERDROLA

Hard-to-Abate Industry

RioTinto, LafargeHolcim, ArcelorMittal, HEIDELBERGCEMENT, AngloAmerican, thyssenkrupp, VALE, bhpbilliton, SAINT-GOBAIN

Hard-to-Abate Transport

VOLVO, MAERSK, IAG International Airlines Group, American Airlines, QANTAS, Schiphol Group, GROUPE ADP, Heathrow

Logistics & Consumer Facing

DHL, Nestlé, IKEA, P&G Procter & Gamble, PEPSICO, NIKE, Unilever, DANONE, Starbucks Coffee

Tech Sector

Microsoft, Google, Apple, amazon, facebook

Finance & Insurance

HSBC, Morgan Stanley, NatWest, Allianz, Swiss Re, AEGON, JPMorgan Chase & Co., BARCLAYS

1. Public announcements

Priority areas to facilitate net-zero carbon emissions by 2050[1]

Key initiatives

Expand clean energy usage

1. **Drive massive clean energy electrification** across end-use sectors, particularly ones that cannot be fully electrified
2. **Deploy hydrogen** to activities that cannot be easily electrified
3. Decarbonise fossil fuel energy use with **carbon capture storage** and **sustainable bio-energy**

Ramp-up low-carbon energy supply

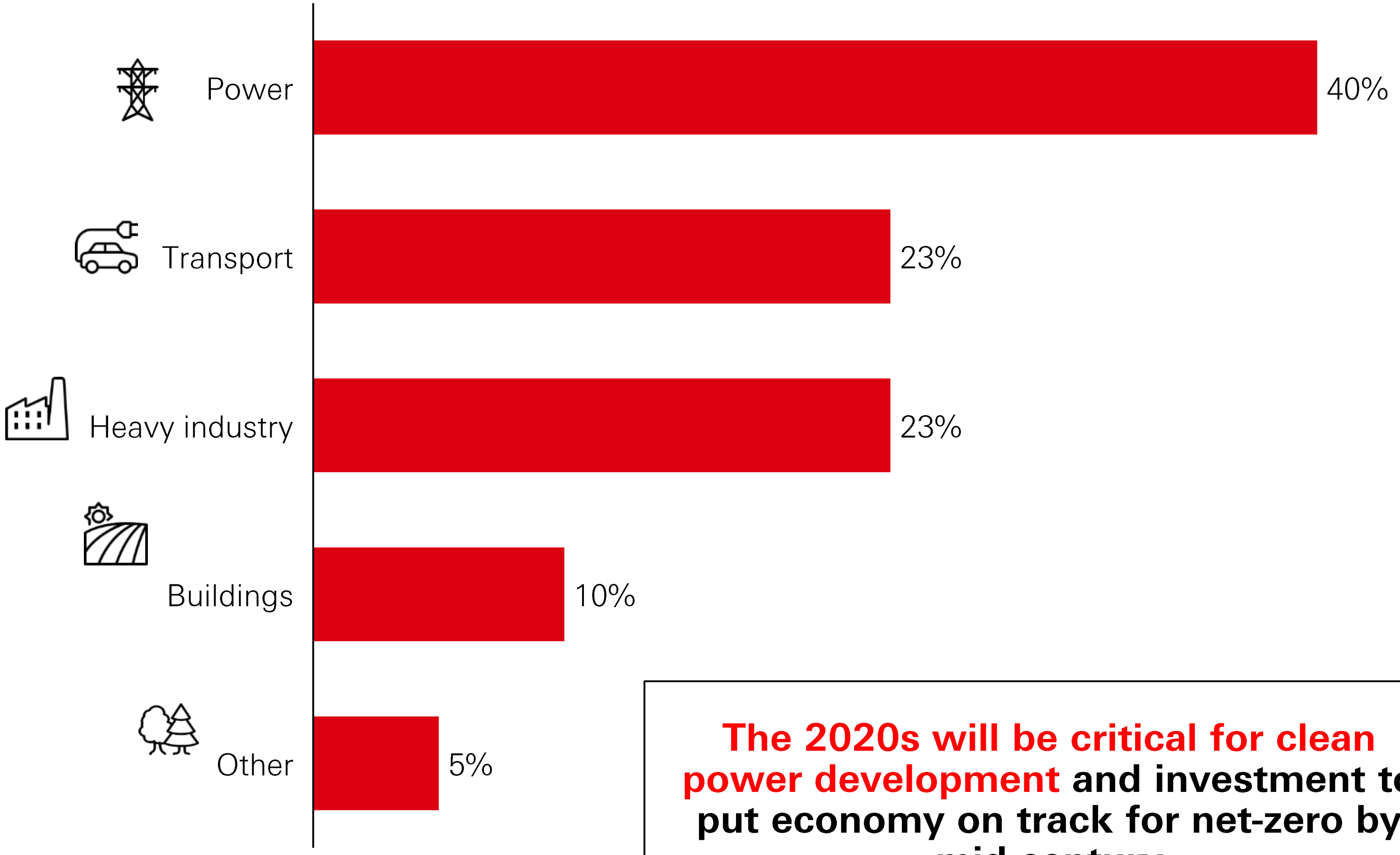
4. Ramp up **renewable electricity power production by 5-6x**
5. **Scale up low or zero-carbon hydrogen production by ~11x**
6. Develop **bio-fuel and synthetic fuel supply chains**

Reduce final energy demand

7. **Increase energy efficiency** in consumer facing products and within materials production processes
8. **Reduce primary 'new' material** in production construction processes
9. **Promote circular and 'sharing' business models** that minimize new product consumption

% of global $GtCO_2$ emissions by sector, top 5[2]

100 companies are responsible for 70% of Global GHG emissions[3]



The 2020s will be critical for clean power development and investment to put economy on track for net-zero by mid-century

1. ETC: 'Mission Possible: Delivering a net-zero economy' (2020)
2. International Energy Agency (2021); https://www.iea.org/data-and-statistics/charts/global-energy-related-co2-emissions-by-sector
3. CDP
4. ETC: 'Mission Possible: Delivering a net-zero economy' (2020)

Critical enablers for delivering zero-carbon emissions by 2050

Significant role of clean power and hydrogen

Clean Electrification

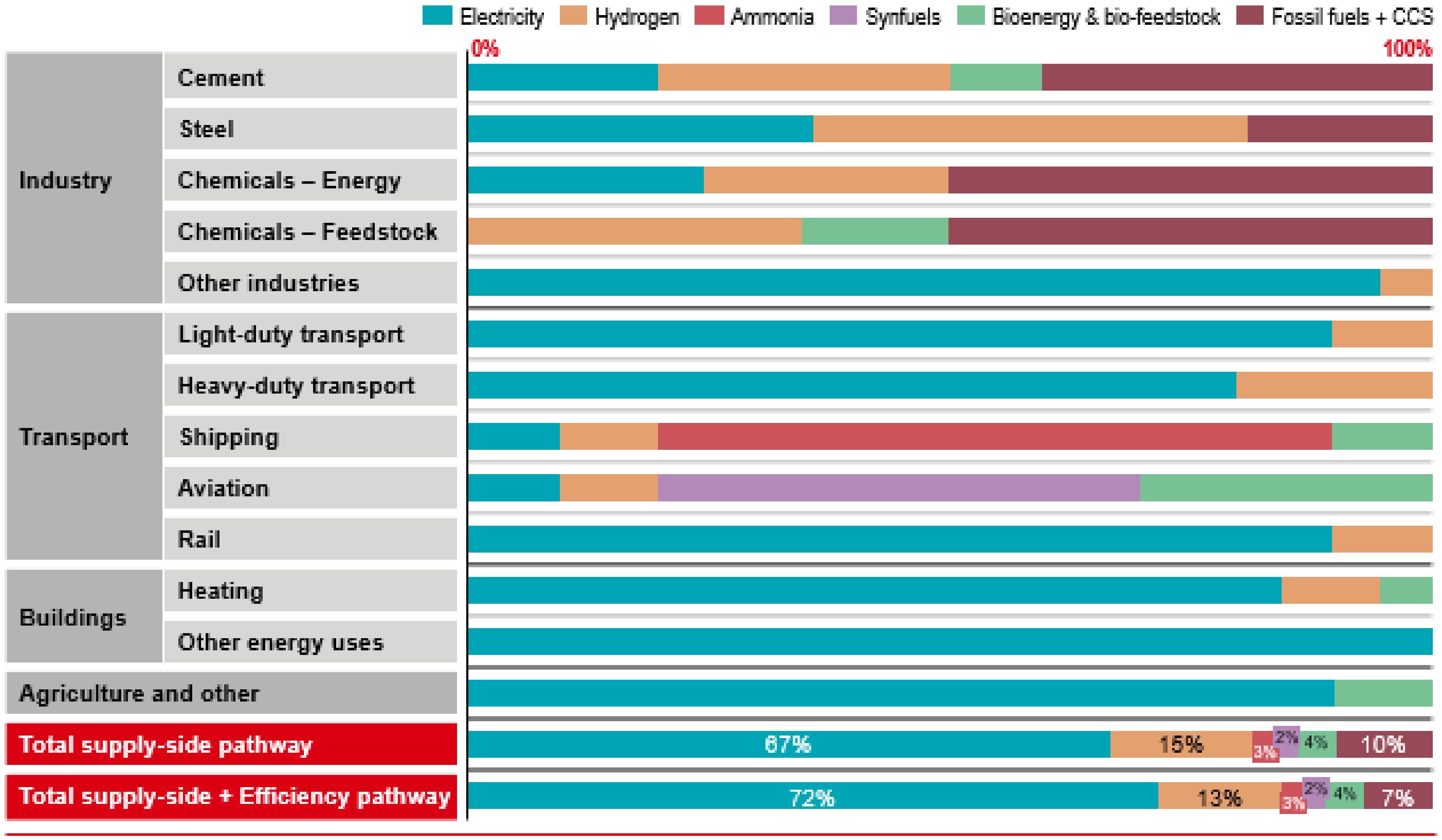
- Direct use of electricity to reach **~70% of final energy demand,** up from 19% today
- ~6x increase from 27,000 TWh today to 100,000 TWh

Hydrogen

- **Hydrogen end-use to reach 20% of energy demand,** from 5% today; most current hydrogen is consumed within the chemicals sector
- **11x increase** from 70 Mt today to ~800 Mt

Illustrative final energy mix in a zero-carbon economy by sector

2050, %



Source: ETC: 'Mission Possible: Delivering a net-zero economy' (2020)a

Impact on ESG Investment

Transition related investment opportunities are growing rapidly

Climate transition presents **investments opportunities** across all asset classes and time horizons

…Failure to capture investment opportunities now could lead to substantial **risks in the future**

Investment Opportunities

- **Immediate plug and play solutions** (e.g. existing ESG products including liquidity and low carbon transition)
- **Emerging new growth areas** (e.g. green impact emerging market debt, natural capital)
- **Longer-term** products and propositions as transition solutions emerge (e.g. emerging climate technologies)

Investment Risks

- **Cost of physical assets:** Physical destruction and economic disruption from extreme weather patterns
- **Rapid decline in asset values** (equity and debt) linked to fossil fuel use (e.g. stranded assets)
- **Increased regulatory and disclosure burden;** mandatory as well as voluntary

Source: HSBC Asset Management. For illustrative purposes only.

Key themes in ESG in 2021

The transition to a low carbon sustainable future

- The transition to a low carbon, sustainable future represents one of the **biggest opportunities and risks** for the global economy and society at large
- **Covid-19** has increased the focus among consumers on **ESG and decarbonisation**
- The drive towards sustainable investment from **policymakers and regulators** is continuing
- **Corporates and institutional investors** are increasingly ready to commit to a Net Zero future
- **Asset Managers** are asked by their clients to support them on the journey to Net Zero

Source: HSBC Asset Management

What does that mean from an Investment perspective?

Maximize efforts to achieve decarbonisation in the real economy

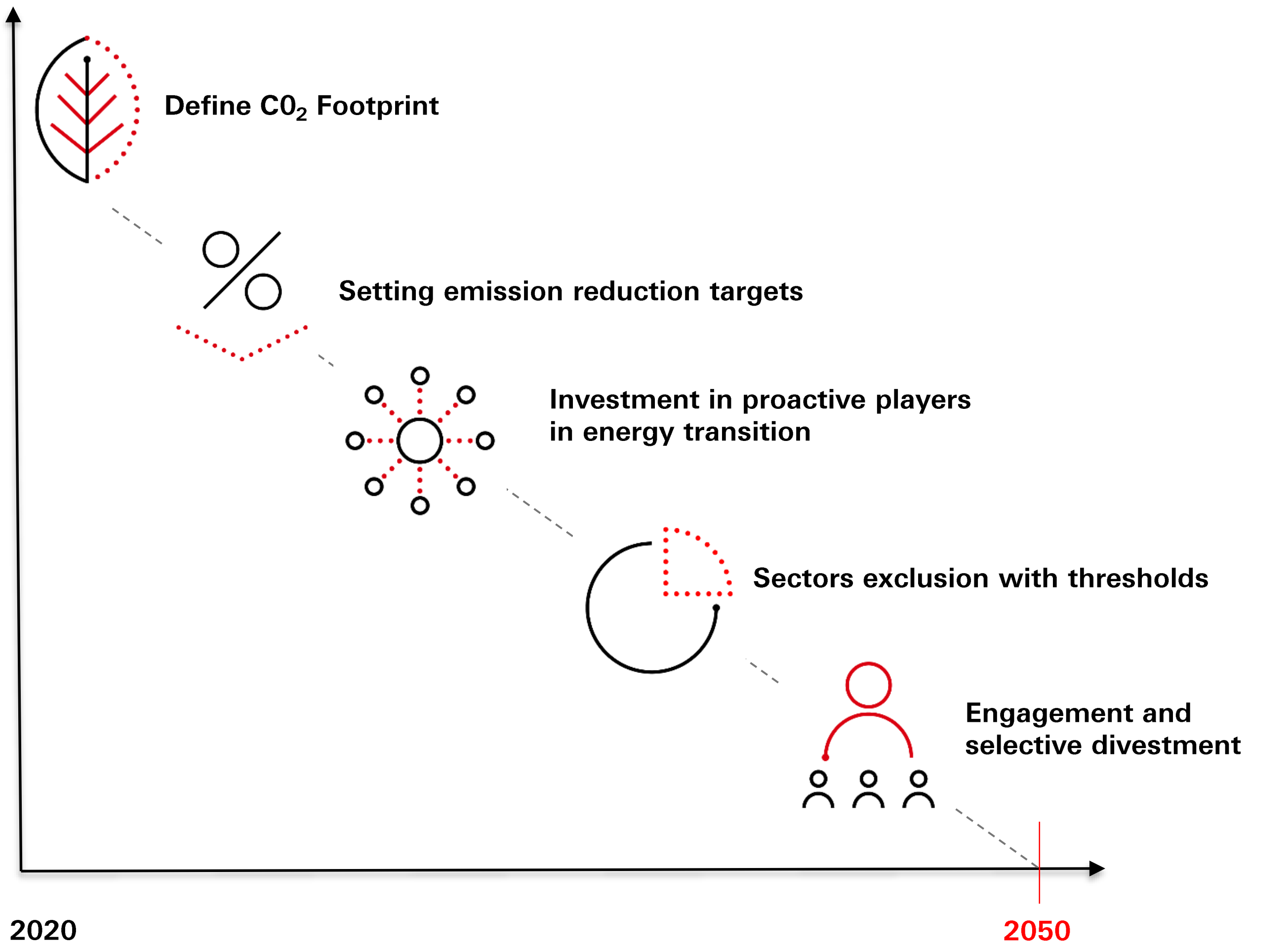
- Robust emission reduction targets to be monitored against Net Zero 2050 emissions pathway
- With intermediate targets: 40-50% emission reduction by 2030
- Assess appropriate targets at portfolio, country, sector and firm level
- Take a forward looking view

Positive impact on the transition Not only divesting

- Differentiate between achieving net zero in the real world versus a portfolio
- Invest in companies/sectors among the major emitting sectors but with proactive and credible decarbonisation targets
- Avoid sectors exclusion that limit portfolio diversification

Net Zero stewardship with clear targets

- Engagement with the most carbon intensive companies in the portfolio



Source: HSBC Asset Management For illustrative purposes only.

Key ESG considerations for Charities

Charities

Key considerations

1. What are your organisation’s **objectives**?
2. What are your **ethical restrictions**?
3. What are your **responsible investment** requirements?
4. What are your **sustainable investment** requirements?
5. Expected **interaction** with your investment managers?
6. How are you going to report back to **stakeholders** and assess your managers?

Our Approach to Responsible Investment

As part of our fiduciary duty to clients, we have a long-term commitment to delivering solutions that support their financial ambitions while transitioning to a more sustainable future through:

ESG Integration

Integrating ESG analysis as part of our investment process to develop solutions based on client need, designed to mitigate risk and capture opportunities.

HSB in-house research

- ESG pillar weights
- ESG roadmap
- ESG checklist
- In-house thematic

Fundamental Analysis

- Opportunities and risk assessment
- Impact on company valuation

Third party research

- MSCI ESG Research
- Sustainalytics
- S&P Trucost
- Carbon4 Finance
- ISS-Oekom

Portfolio Analytics

- ESG rating
- Carbon footprint > Funds and benchmarks

Active Ownership & Engagement

We use our influence as investors to encourage corporate behavior that protects and enhances value, through voting, company engagement, and as signatories of a number of statements and investor stewardship codes that publicly call for or commit to ESG related action.

Voting & Engagement in 2020

- We voted on more than 86,000 resolutions at over 8,200 company meetings across 70 markets
- ESG issues were raised in engagements with 2,300 companies, in 78 markets, focused on climate change in particular

Leadership

Engaging with policymakers and industry leaders to support the transition to a low-carbon economy and supporting behaviour change through engagement with clients and stakeholders.

ONE PLANET SUMMIT SOVEREIGN WEALTH FUNDS

PRI Principles for Responsible Investment

IIGCC The Institutional Investors Group on Climate Change

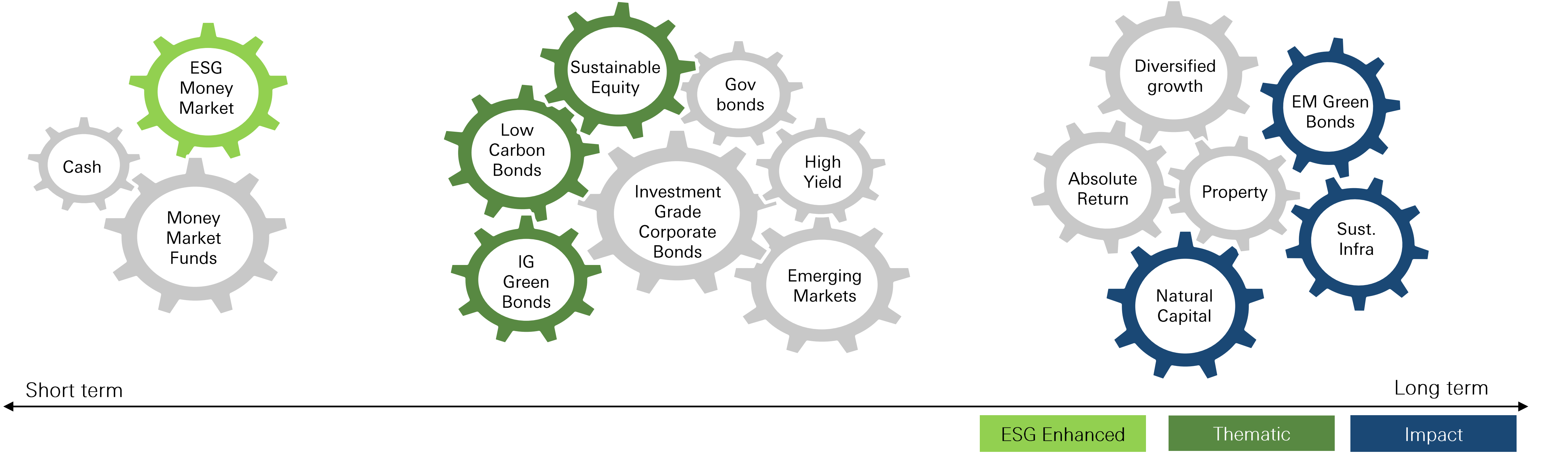
Source: HSBC Asset Management. For illustrative purposes only.
Representative overview of the investment process, which may differ by product, client mandate or market conditions.

ESG can be applied across portfolios and asset classes….

Liquidity portfolio:
Cash flow management

Core portfolio:
To achieve long-term objectives

Alternatives:
Diversifiers and volatility management



Transition to low carbon, climate resilient growth

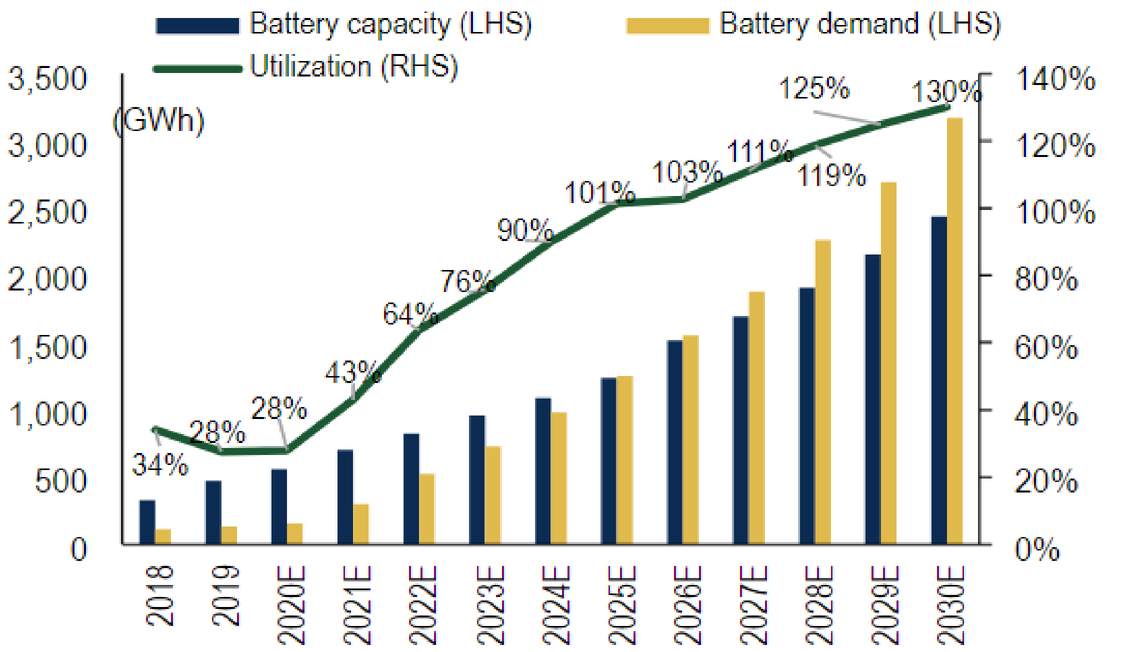
- Target carbon reduction
- Convert active fixed income portfolios to lower carbon strategies

- Future commitments to sustainable infra debt
- Convert passive equities to sustainable passive
- Increase sustainable private equity allocation
- Include impact strategies

Source: HSBC Asset Management. For illustrative purposes only.

And whilst low carbon transition is important

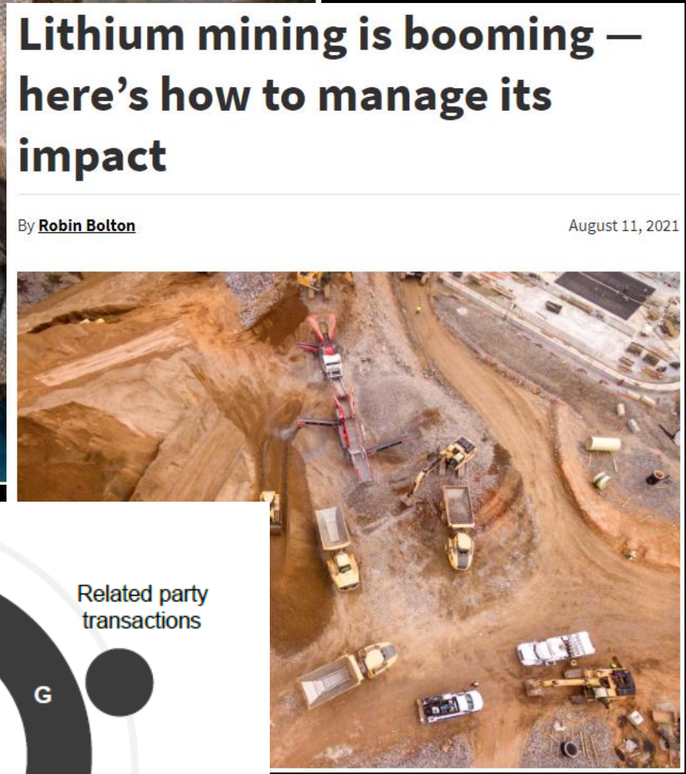
Chart 4: Global battery supply-demand projection: global utilization rates likely nearing "sold-out" situation in 2024E



Source: BofA Global Research estimates

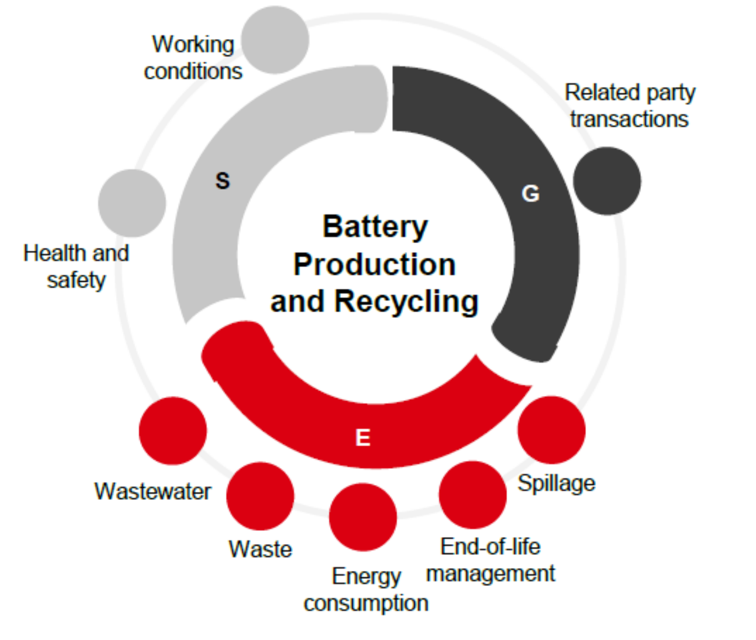
Other ESG issues also need to be considered


Apple and Google named in US lawsuit over Congolese child cobalt mining deaths


Lithium mining is booming — here's how to manage its impact

By Robin Bolton

August 11, 2021



Source: BofA Global Research, The Guardian, Greenbiz, HSBC Global Research

Thank you,
any questions?

Opening up a world of opportunity