

ESG Central

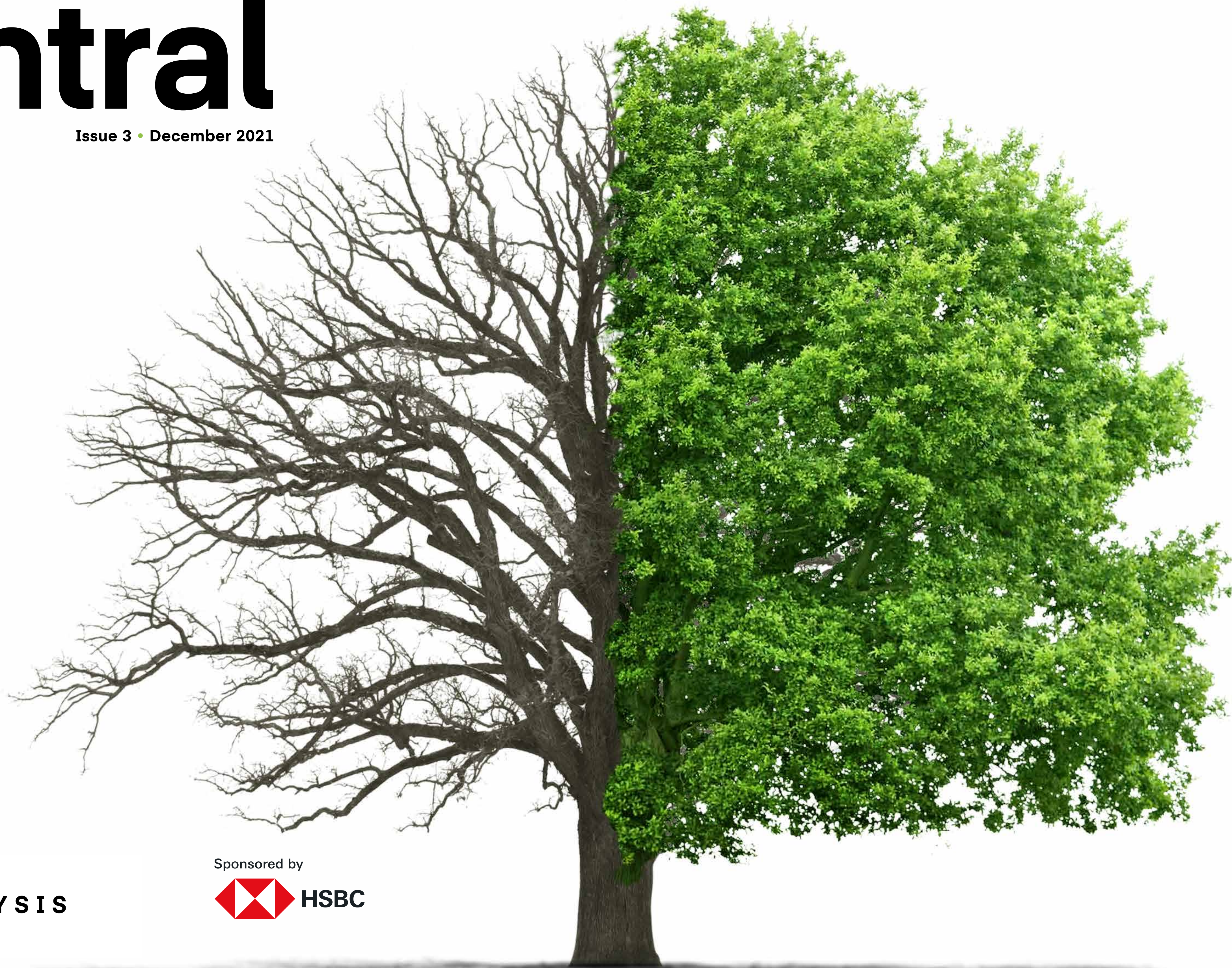
The Latest ESG News and Analysis

Issue 3 • December 2021

Keeping the 1.5°C dream alive

Egypt on the global stage

**Nuclear Fusion:
Turning science fiction into reality**



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Perfect is the enemy of good

The perfect is the enemy of the good. That aphorism, first attributed to French writer Voltaire in the 18th century, is often rolled out as a lesson in business schools: it is better to get a good product to market when the opportunity exists than a perfect one when it is too late.

This principle also holds true for climate negotiations. The Glasgow Climate Pact, the final agreement from last month's UN Climate Summit, was certainly not the perfect outcome. Commitments from governments fell short of what's needed to limit global warming to 1.5°C above pre-industrial levels. The death-knell for coal is ringing, but only faintly. And developed countries failed to deliver on the US\$100 billion of climate finance promised in Copenhagen back in 2009.

Not perfect. But was it good? The answer to that question depends a lot on who you ask, but it is beyond dispute that COP26 did deliver some real progress. Governments stepped up their national climate change commitments, with landmark pledges from the likes of India, and important deals done on methane and deforestation. If all the pledges are met in full and on time, the climate will warm by 1.8°C this century, according to the International Energy Agency. (The Climate Action Tracker says 2.4°C is more likely.)

And the Glasgow pact created momentum that will carry into 2022 and beyond. Critically, parties agreed to revisit their emissions targets next year, rather than once every five years as they did under the previous framework. Climate finance remains on the agenda, with work now moving ahead on a new, long-term target.

Even the appearance of coal on the final document, signed by 196 parties and the EU, is an unprecedented achievement in a UN framework, where the principle of sovereignty is a cardinal rule. The fact that all parties agreed to the need to curb coal power – without vetoing efforts to interfere with

their natural resources or energy security – points to a common understanding.

The battle against climate change will be long and the most significant achievement of the UN process is perhaps its ability to create a sense of urgency and common focus. That was clear in the level of engagement from the private sector at the Glasgow meetings: almost 40,000 people registered for the conference, double the figure for COP25. The financial sector was especially well represented, thanks in no small part to the efforts of the Glasgow Financial Alliance for Net Zero coalition to corral banks, insurers and asset managers into setting their own net zero targets.

This momentum is important: if the world is to avert a climate disaster, all companies, institutions and citizens need to start changing their behaviour today.

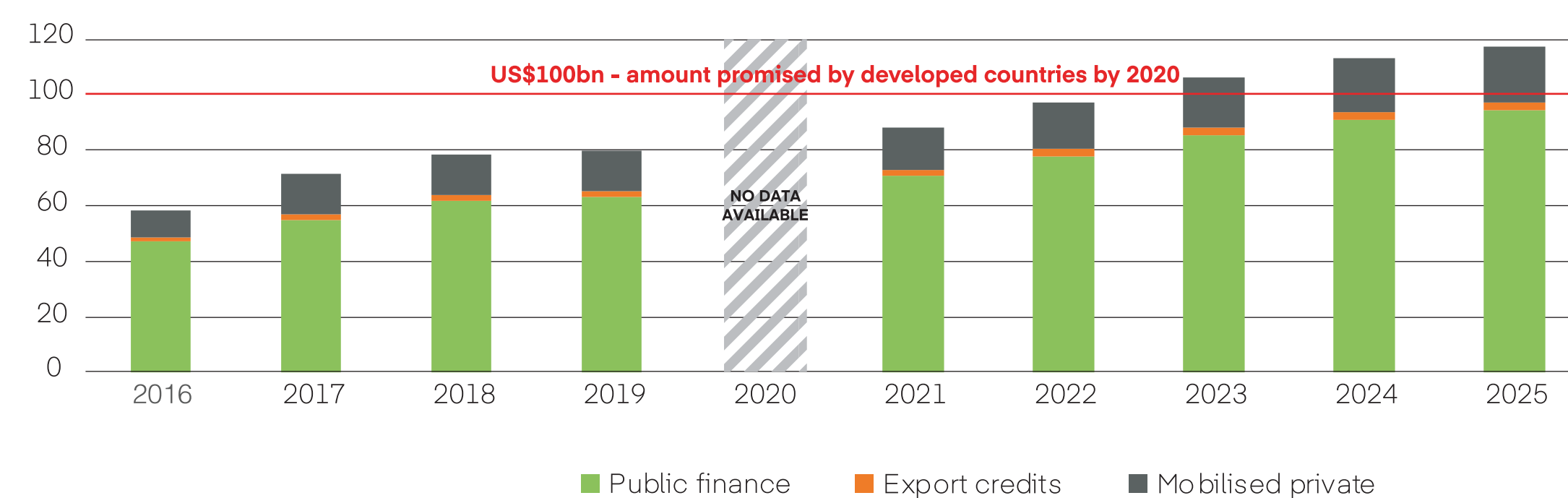
Voltaire's principle applies here, too. Net zero – the perfect – will take decades to achieve but reducing emissions – the good – is today's business.

"Voltaire's principle applies here, too. Net zero – the perfect – will take decades to achieve but reducing emissions – the good – is today's business"



Steve Garton
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Not there yet
Climate finance provided and mobilised by developed countries (US\$ bn)



Source: OECD. Estimates for 2021-2025 assume full delivery on intended commitments and expansion of private finance on a constant ratio

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Keeping the 1.5°C dream alive

The COP26 climate summit delivered real progress on multiple fronts, but much more is needed to avert a climate disaster

As the dust settles on a frenzied 14 days at the COP26 climate summit, finding a consensus as to the whether the Glasgow meetings were a success or failure is proving almost as hard as the negotiations themselves.

For the campaigners who had called for emissions cuts in line with a 1.5°C pathway, US\$100 billion for developing countries and a complete end to coal power, the final outcome was deeply disappointing.

The pact, announced with a tearful apology from COP26 President Alok Sharma, “reflects the interests, the contradictions, and the state of political will in the world today,” said UN Secretary General António Guterres.

From a more optimistic – perhaps realistic – reading, the meetings deserve praise for delivering some progress on these major issues.

The targets announced at COP26 would limit temperature change this century to 1.8°C, according to the International Energy Agency – the first time that world leaders have set targets ambitious enough to restrain global warming to less than 2°C.

The US\$100 billion climate finance target may still be met in 2022 or 2023, and the final document did at least mention coal – even if the language was weaker than first proposed.

“COP26 yielded more successes than failures,” said Wai-Shin Chan, Head of HSBC’s Climate Change Centre of Excellence and Global Head of ESG Research at HSBC. “While the outcome keeps the 1.5°C goal alive, many feel ambition levels could have been much higher.”

Increased commitments from countries such as India, which made a surprise pledge to reach carbon neutrality by 2070, keep the world in sight of that 1.5°C pathway – the more ambitious target of the Paris Agreement in 2015. Equally important, however, is the recognition that much more must be done: world leaders also pledged to review their nationally determined contributions by the end of 2022, ahead of the previous five-year cycle.

“Following COP, the global emissions trajectory to

“While the outcome keeps the 1.5°C goal alive, many feel ambition levels could have been much higher”

2030 is rising by 13.7%, down from 16% — but this needs to be declining by 45%,” said Chan. “The commitment to review NDCs provides some scope for improvement.”

Market-driven

Perhaps the most tangible surprise to the upside was final unanimity – a day after the conference was scheduled to close – on Article 6 of the Paris Agreement, which had remained unresolved since 2018. Article 6 sets out guidelines for a global carbon credits transfer system, allowing countries to use carbon mitigation projects overseas to count toward their own emissions targets.

The contentious issue here concerned whether to accept carbon credits from the 1997 Kyoto Agreement into the new scheme. Fears that this would dilute and depress the price of new credits were ultimately settled via a compromise: only post-2012 credits can be transferred, and these cannot be used to meet NDCs after 2030.

“Article 6 means that there are rules for accounting for carbon and adjusting emissions targets,” explained Chan. “Overall, this is good for voluntary carbon markets.”

A second positive was the Global Methane Pledge to reduce methane (CH₄) emissions by 30% by 2030 compared with 2020 levels. The agreement draws attention to the need to tackle a potent greenhouse gas, but there is room for further momentum: the world’s three largest CH₄ emitters – China, India and Russia – did not sign the pledge, although China has since committed to publish a national methane action plan aimed at curbing emissions.

The Glasgow Leaders’ Declaration on Forests and Land Use, designed to halt deforestation and land

degradation by 2030, also attracted a strong following. The 133 signatories are home to 85% of the world’s forests. “We must follow through on this agreement,” said Chan. “That’s something we didn’t do after the New York Declaration on Forests in 2014.”

Much was expected of the delegates on the topic of climate finance. Notably, Janet Yellen became the first US Treasury Secretary to attend a COP conference, underlining the importance of the issue. Having promised in 2009 to provide US\$100 billion a year from 2020 to their developing counterparts for mitigation and adaptation, developed economies have not delivered.

Again, compromise yielded a solution: the Standing Committee on Finance will produce a report next year, with the promise to meet the goal in 2023 – or 2022 if possible. Included in the final pact is a recommendation that total commitments from developed economies to developing countries by 2025 should be at least double 2019 levels.

The topic of coal power remained deeply divisive throughout the negotiations. Although world leaders pledged to tackle emissions from thermal coal for the first time in a global climate deal, the final text committed countries only to ‘phasing down’ rather than ‘phasing out’ coal power – a change Sharma blamed on India and China, the two biggest coal consumers.

After a one-year delay, and with the effects of climate change already becoming clear, the COP26 summit managed to deliver a genuine consensus on the urgency to save the climate, without triggering a schism between developed nations and more coal-dependent emerging markets.

“It’s never going to be perfect, and success will always be on a spectrum, depending on what you’re looking for,” said Chan.



Alok Sharma, COP26 President

1.8°C

Projected temperature change this century if all targets are met in full and on time, according to the IEA.

Listen to a replay of Wai-Shin Chan’s assessment of COP26 in Live Insights from HSBC Global Research at <https://www.research.hsbc.com/C/1/1/320/ZW9VbW2>



Setting the standard

ISSB announcement is a step towards a global sustainability reporting framework

Ever heard the joke about the interesting accountant? Old gags aside, it will come as a surprise to many that the slow-moving world of financial accounting provided one of the biggest headlines at the COP26 summit. The launch of a new framework for sustainability disclosures, however, is a catalyst in the development of global standards that will help direct the flow of finance in the world's capital markets.

On 3 November, the IFRS Foundation, which oversees accounting standards used in over 160 countries, unveiled three significant moves to provide financial markets with high-quality climate and sustainability disclosures. Most headlines have been devoted to the first: the creation of the International Sustainability Standards Board (ISSB), a new body designed to develop a comprehensive global reporting baseline for financial markets. Equally importantly, the Foundation also announced the consolidation of two standard-setting bodies – the Value Reporting Foundation (VRF) and the Climate Disclosure Standards Board (CDSB) – into the ISSB and published two reporting prototypes for climate-related and general sustainability disclosures.

This three-pronged approach creates an independent oversight body, establishes credibility for the new framework and provides clarity over what the new rules will look like. Regulators have been quick to endorse the plan as a crucial step towards ensuring businesses fulfil their role in bringing about a net-zero world.

Ashley Alder, CEO of Hong Kong's Securities and Futures Commission and Chair of the International Organization of Securities Commissions (IOSCO), hailed it as a "pivotal moment".

"The new board under the IFRS Foundation umbrella offers the most credible mechanism for creating a baseline of disclosure standards, enabling a confusing picture to be superseded by a properly aligned global approach," he said.

Dylan Whitfield, Head of Forensic Accounting Research at HSBC Global Research, said the support for the ISSB from finance ministers and central bank governors was encouraging. "This unified approach to global standards is a helpful step change for all stakeholders," he wrote.

The ISSB standards are set to complement current IFRS Accounting Standards, answering the unmet need of investors and businesses for a global framework covering sustainability and climate-related reporting

"To play their role effectively, financial markets need good quality, comparable information about the effects of sustainability-related risks and opportunities for making investment decisions," Erkki Liikanen, Chair of the Trustees of the IFRS Foundation, told COP26 participants.

Consistent disclosure will help investors assess enterprise value and investment decisions more confidently, by gaining better understanding of how companies are responding to climate challenges and other ESG risks. Companies will also get clearer guidelines for compliance, after years of navigating an alphabet soup of competing reporting standards.

International baselines are critical for investors and having them integrating into our local markets as quickly as possible is important," said Erwin Jackson, director of policy at the Investor Group on Climate Change, an alliance of Australian and New Zealand investors managing over A\$2 trillion (US\$1.44 trillion) of assets.

A question of materiality

The publication of the proposed standards is designed to give the ISSB a running start by building on years of work already done by industry experts, notably the VRF – the body behind the Sustainability Accounting Standards Board (SASB) – the CDSB and the Task Force on Climate-related Financial

Disclosures. The International Accounting Standards Board, the World Economic Forum, IOSCO and others are also helping with the drafting.

The Climate-related Disclosures prototype requires information on how companies are identifying and managing climate-related risks and opportunities. This includes an assessment of risks or opportunities that have an impact on a company's business model, strategy and cash flows. The proposed standard also helps investors understand a company's resilience to physical climate-related risks and the impact of the transition to a low-carbon economy.

The prototype draws on cross-industry and industry-based metrics, including greenhouse gas emissions, the amount and percentage of assets vulnerable to physical risks, capital spending towards climate-based risks and opportunities, and even executive management remuneration affected by climate-related factors.

The proposed General Requirements for Disclosure of Sustainability-Related Financial Information are meant to help investors understand material information about significant sustainability risks, including social factors such as human rights and community relations as well as environmental issues. Work on the final standards will run through 2022.

Both prototypes follow the IFRS Foundation's traditional approach, focusing on information that impacts enterprise value. This approach – as enshrined in the IFRS Foundation's constitution – will make it easier to incorporate the new standards with existing IFRS accounting rules, but for some this does not go far enough.

Critics have zeroed in on the concept of materiality: what kind of sustainability-related information is really important to investors?

Notably, the ISSB's approach differs from the EU's

concept of "double materiality", which requires companies to report on aspects influencing both enterprise value and the broader society – including the environment and human rights. The World Economic Forum has also suggested an alternative "dynamic materiality", which would incorporate information that may become financially material to a company in the future.

The US, which does not follow IFRS accounting, is working on its own sustainability reporting requirements and has yet to make its position clear. However, the support of the VRF – whose SASB standards are used by 950 US-based companies – suggests that the ISSB "baseline" will be closely aligned with US practices, avoiding the need for global companies to disclose similar information two or three times in different formats.

There is still some way to go before these proposed standards enter into force. Assuming IOSCO endorses the final drafts to its members – covering 95% of the world's securities markets – individual regulators will still need to decide whether to add their own requirements on top of the ISSB standard.

However, the new board has pledged to move at pace: ISSB is now in the process of appointing a Chair, Vice Chair and additional board members and aims to commence its work in early 2022. Its headquarters will be in Frankfurt, with a presence in Montreal, San Francisco and London, and discussions are continuing with Beijing and Tokyo.

"There is much work ahead of us and many challenges on the way. However, we now have a path towards global sustainability disclosure standards for the financial markets," Liikanen said.

This timeline reflects a sense of urgency from a profession that values stability above all. Any doubts that the financial sector is taking the climate crisis seriously must now be gone for good.

"There is much work ahead of us and many challenges on the way. However, we now have a path towards global sustainability disclosure standards for the financial market "



Erkki Liikanen, Chair of the Trustees of the IFRS Foundation

95%

Percentage of global securities markets represented by IOSCO, a major supporter of the ISSB initiative



Technology for the transition

Advances in data and technology will have a big part to play in the fight against climate change. Investors are paying attention

The Global Methane Pledge, signed by more than 100 countries during COP26, provided a compelling example of the role that technology will play in the battle against climate change.

Alongside the commitment to reduce methane emissions by 30% by 2030, European Commission President Ursula von der Leyen also announced the launch of an independent monitor that will use satellite imagery to help companies and governments to identify methane hotspots.

The International Methane Emissions Observatory, funded by governments, the European Commission and philanthropies, will analyse information from satellites and other sources to provide reliable scientific data on methane leaks.

“Existing systems do not allow us to determine precisely enough where these emissions happen across the globe and in what volumes. Once better data is available, countries can take swift and well-targeted action,” said EU Commissioner for Energy Kadri Simson.

This branch of climate technology is growing quickly as governments and investors demand more useful and scientific data to guide their decision-making.

Another not-for-profit venture, MethaneSAT will put its methane-detecting satellite into orbit in October 2022 on the back of a Space-X rocket, providing data both on wide-area emissions and individual point sources for the public domain. In the private sector, US-based Kairos Aerospace, which uses aircraft to help clients identify methane leaks, completed a Series C fundraising in August backed by Silicon Valley stalwart DCVC, among others.

The potential commercial uses of climate tech are also attracting big money from the private sector.

These range from using technology to boost energy efficiency – such as smart systems that turn off lighting or air conditioning when they are not needed – to precision agriculture, using sensors on drones or

satellites to manage resources, or autonomous farm robots to tend to crops. Next-generation fuels, such as green hydrogen and ammonia, and carbon capture ventures are also attracting investment.

HSBC Ventures, a US-based vehicle launched in September to work with early-stage technology companies, has pledged to provide US\$100 million of funding for climate tech businesses.

“HSBC’s Ventures naturally extends our global focus on technology financing by supporting fast-paced growth enterprises with comprehensive banking products,” said Martin Richards, President of HSBC Ventures and Global Head of Sustainable Finance – Commercial Banking, HSBC.

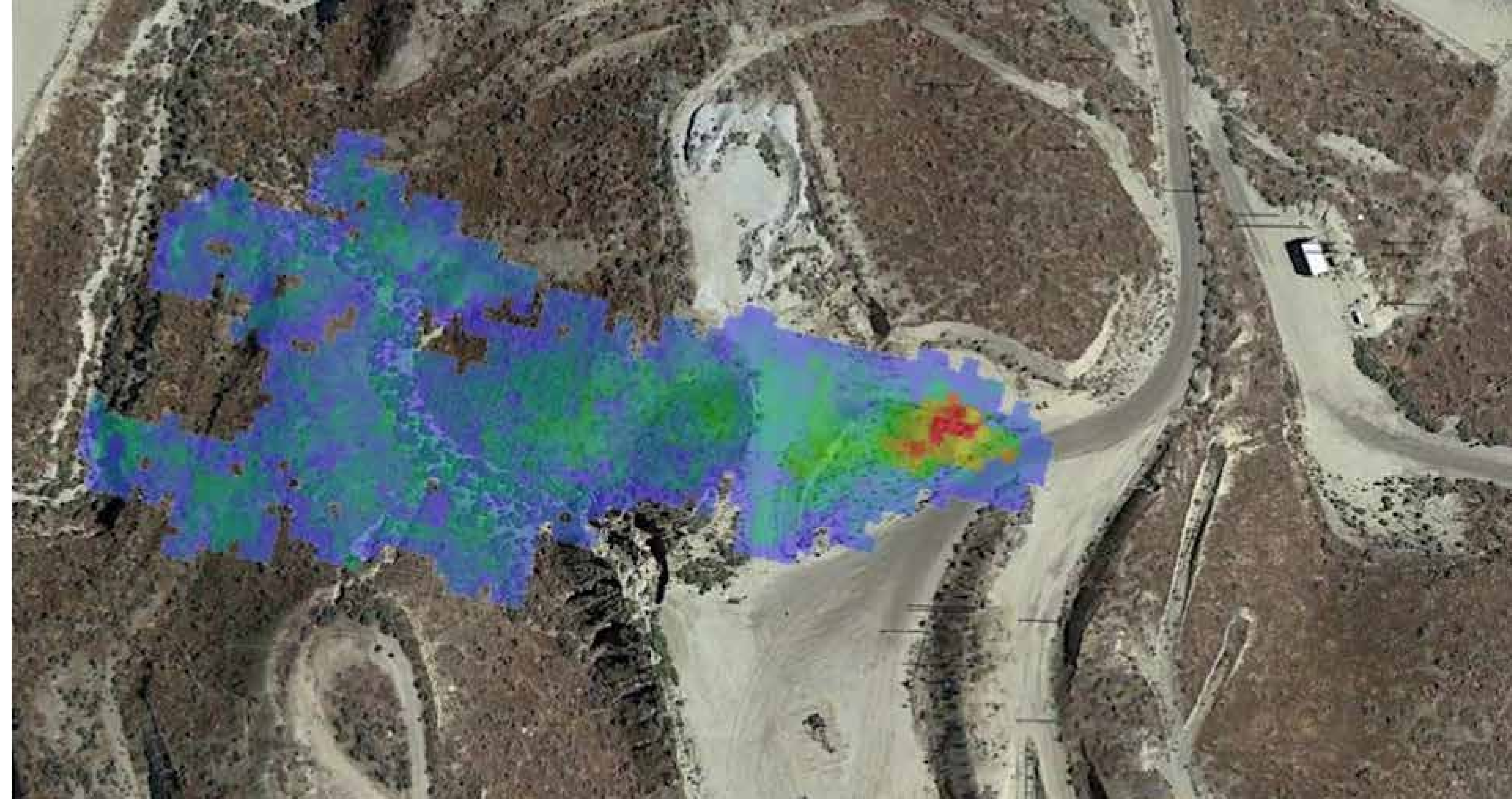
VC investment in climate tech companies topped US\$17 billion in 2020, according to BloombergNEF, and the figures for the coming years will be a multiple of that. Climate technologies could attract US\$1.5 trillion to US\$2 trillion of capital investment per year by 2025, according to McKinsey research. In Europe, some 40% of the emissions abatement needed by 2050 will depend on technologies that are still in development, McKinsey said.

This rapid build-up of interest in climate solutions is prompting some comparisons with earlier boom-bust cycles. PwC estimates that venture capitalists pumped US\$25bn into clean-tech companies between 2006 and 2011, only to lose about half of it when companies like Solyndra and A123 Systems failed to live up to expectations.

Investors, however, are focusing on the success stories. Bill Gates expects eight or 10 companies the size of Tesla to emerge from climate tech, even if there is a high failure rate, he said at the SOSV Climate Tech Summit in October.

For the financial sector, the data generated by the growing application of climate technology promises to have a catalytic effect.

“The interesting part is where finance can work with technology to create something new,” said Jonathan



“What’s very interesting around climate tech, is that the data it produces is very likely to be well trusted.”

Drew, Managing Director, ESG Solutions, HSBC, speaking at Hong Kong Fintech Week in October.

For example, the kind of independent data produced by Europe’s IMEO can be used by both regulators and financiers to incentivise companies to reduce their emissions.

“What’s key here, and what’s very interesting around climate tech, is that the data it produces is very likely to be well trusted,” said Drew. “Technology gives you good, reliable data that can be attached to financial incentives, and therefore you’re potentially creating a whole new set of capital flows to drive the sustainability agenda.”



Jonathan Drew, Managing Director, ESG Solutions, HSBC

40%

Emissions cuts by 2050 that depend on technologies still in development, according to McKinsey.



ESG NEWS ROUNDUP



ADB launches coal retirement plan

The Asian Development Bank, Indonesia and the Philippines announced plans for an innovative **Energy Transition Mechanism** (ETM) that seeks to retire coal-fired power plants ahead of schedule.

The ETM will use a blended finance approach, combining concessional resources from donor governments, philanthropies and global climate change-focused funds with large amounts of commercial capital across two multibillion-dollar funds.

The first will fund the retirement of coal plants, with a target of winding down five to seven coal plants in Indonesia and the Philippines in the pilot phase of 2-3 years.

The second fund will focus on clean energy investments in generation, storage, and grid upgrades.

“ETM has the potential to accelerate the retirement of coal plants by at least 10 to 15 years on average,” said Philippine Finance Secretary Carlos Dominguez.

The Philippines currently gets 57% of its power from coal, but has pledged to stop building new plants.

Indonesia has committed to reducing emissions by 29% by 2030 and achieving net-zero emissions by 2060.

The ADB projects that the scheme could cut 200 million tons of CO2 emissions per year once it is fully scaled up, flagging a potential expansion to Vietnam.

“As it grows, ETM has the potential to become the largest carbon reduction program in the world,” the bank said.

Speaking at the launch of the ETM, HSBC Group Chief Executive, Noel Quinn said: “The objective of the ETM is very simple: materially earlier retirement of coal assets without hindering growth. The mechanism is complex, so we need to work through the detail with governments and other stakeholders. But the ETM is a means by which we can make that objective happen.

“I congratulate the ADB on the innovation, ambition and creativity it is bringing to the role of public-private partnerships in the net zero transition.”

FAST-Infra label unveiled

The FAST-Infra initiative on November 2 launched a global labelling system for sustainable infrastructure assets with the endorsement of investor groups including the G20’s Global Infrastructure Facility and the Glasgow Financial Alliance for Net Zero (GFANZ).

The **SI Label** is designed to help investors identify bankable projects that deliver real sustainability benefits, helping make sustainable infrastructure a deep and liquid asset class. “It will give investors clarity and confidence that the project they’re investing in really is sustainable. And that extra confidence will help address the estimated US\$2.5-3 trillion annual investment gap for sustainable infrastructure,” said Christian Deseglise, Head of Sustainable Finance and Investments, Global Banking and Markets, HSBC, a founding member of the FAST-Infra project. “It’s a crucial pillar of the global transition to net zero.”

A data repository will be launched in 2022 and a tech-enabled platform is also under development, which will eventually seek to facilitate the securitisation of infrastructure loans.

BlackRock fund targets EM risks

BlackRock has raised US\$673 million from 22 investors ranging from governments to life insurers and energy companies for a new blended finance vehicle focusing on climate infrastructure in emerging markets.

Announced on the sidelines of the COP26 summit, the new fund – the **Climate Finance Partnership** – is designed to attract more private capital to developing markets by lowering the risk profile.

The fund includes US\$130 million of “catalytic capital”, contributed by state-owned development banks from France, Germany and Japan, three philanthropic institutions and French energy company TotalEnergies, which have agreed to take losses before other investors. The remaining institutional component attracted mainly banks and institutional investors.

“This partnership is proof that governments, philanthropic organizations, and institutional investors can come together to mobilise capital at scale into emerging markets, which are most exposed to the impact of climate change,” said Larry Fink, chairman and CEO of BlackRock.

CFP will invest in non-OECD countries with a focus on clean energy and transportation.

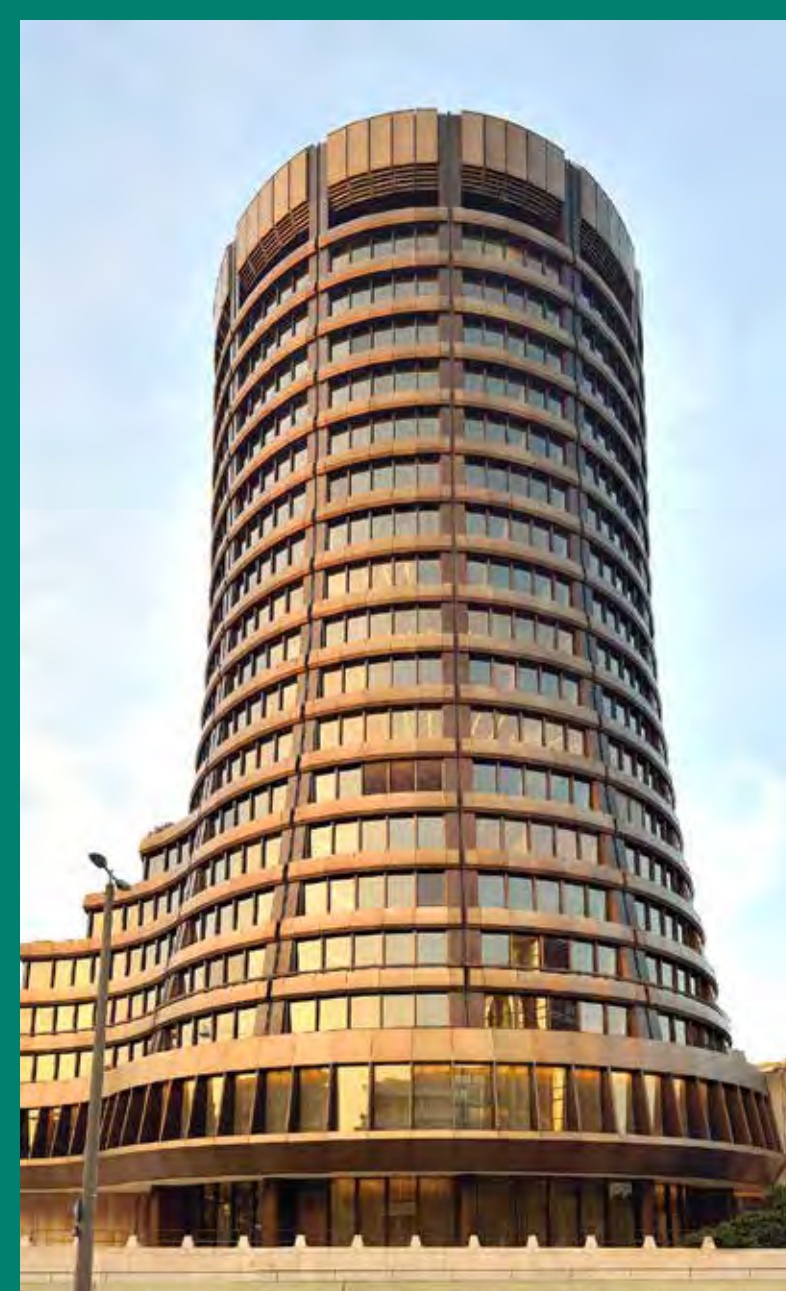
Basel proposals target climate risks

The Basel Committee on Banking Supervision has called for stricter management of climate-related risks in a **consultation paper** outlining a “common baseline” for banks and their regulators.

The proposals put forward 18 principles addressing corporate governance, risk management and disclosure. Among other measures, the recommendations call for banks to incorporate climate risks into their capital and liquidity assessments and for regulators to implement regular stress testing.

The Basel paper is largely aligned with the recommendations of the Taskforce on Climate-related Financial Disclosures, but stops short of explicitly recommending higher capital requirements for fossil fuel exposure – as some campaigners had hoped.

Responses are due by 16 February 2022.



BCBS headquarters

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GFANZ passes US\$130trn

The Glasgow Financial Alliance for Net Zero expanded its membership to 450 firms representing over US\$130 trillion of private capital, according to a **progress report** released at COP26.

GFANZ signatories have pledged to achieve net zero emissions across their investment portfolios by 2050 at the latest, as well as to set interim targets and report their progress annually. Over 90 of the founding institutions have already set short-term targets, GFANZ said.

“The rapid, and large-scale, increase in capital commitment to net zero, through GFANZ, makes the transition to a 1.5°C world possible,” said Mark Carney, UN Special Envoy for Climate Action and Finance and the alliance’s co-chairman alongside Michael Bloomberg.

Critics have questioned how much of the US\$130 trillion total can really be allocated to climate investments, given the potential for double counting between asset owners and asset managers, and the voluntary nature of its members’ net zero commitments. Still, the scale of net zero ambitions is staggering, at around 40% of the global financial system.



ESG NEWS ROUNDUP

ECB warns on climate risks

The European Central Bank has warned that the banking sector is not doing enough to prepare for the impact of climate change in a new report on the state of climate-related and environmental (C&E) risk management.

Fewer than half of the banks covered in the report have taken "any steps at all to adjust their business model and strategic planning in the face of inevitably larger climate-related risks going forward", ECB Executive Board member Frank Elderson said in a blog post introducing the findings.

The 112 banks directly supervised by the ECB can expect further pressure to step up their risk management. The ECB is preparing climate stress tests in 2022 with a view to integrating climate-related and environmental risks in its supervisory framework, and the European Commission has proposed rules that would require all banks to disclose and implement a transition plan.

"Banks urgently need to set ambitious and concrete goals and timelines – including measurable intermediate milestones – to mitigate their exposure" to current and future climate risks, Elderson said.



© Photo: ECB

China launches transition loan incentives

China's central bank has announced a new monetary policy tool to incentivise lending to emission-reduction projects. The People's Bank of China will provide cheap funding for commercial lenders to cover 60% of the principal for one year at a preferential rate of 1.75%. Banks looking to use the new tool will need to disclose information to the



PBOC, including details of the projects they are supporting and emissions saved, which will be independently verified.

Australia issues climate risk guidelines

The Australian Prudential Regulatory Authority has released final guidance for the way financial institutions manage the risks of climate change.

APRA's guide is closely aligned with recommendations from the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD).

Biodiversity index launches

HSBC has launched the first equity indexes that screen companies for biodiversity risks.

The Euronext ESG Biodiversity Screened Index series, jointly developed by HSBC, Euronext, and Iceberg Data Lab, aims to provide a benchmark for the growing number of investors looking to protect natural ecosystems.

Constituents will be drawn from the Euronext Eurozone 300 Index and Euronext World Index, using Sustainalytics analysis to screen for ESG risks. Biodiversity screening will be handled Iceberg Data Lab, which assesses companies' impact on biodiversity from land use, emissions and pollution across the whole value chain (Scope 1, 2 & 3).

Patrick Kondarjian, Global Co-Head of ESG Sales, Markets & Securities Services, HSBC, said the bank would offer a range of products that track these indices, giving investors "greater oversight of their portfolios' ESG and biodiversity credentials".

Biodiversity has become a focus for governments and institutions because of its importance in sustaining the world's growing population and removing carbon from the atmosphere.

The Taskforce on Nature-related Financial Disclosures (TNFD), which aims to produce a global reporting framework dealing specifically with biodiversity by 2023, has already attracted the support of over 200 global financial institutions and major corporates.

"We believe that protecting and restoring nature is essential for a thriving global economy and a successful net zero transition," said Marine de Bazelaire, Group Advisor on Natural Capital, HSBC.

Hong Kong tops up green funds

The Hong Kong government issued green bonds in three currencies in November, including its first in euros and renminbi.

Hong Kong raised US\$3bn-equivalent from a dual-currency offering in US dollars and euros, before following that with Rmb5 billion (US\$783m) renminbi-denominated green bond.

"The inaugural euro-denominated offering has allowed us to reach out to a new group of investors, drawing their attention to the sustainability journey of and financial opportunities in Hong Kong, providing momentum for further growth of our financial market," said Financial Secretary Paul Chan.

The financings support Hong Kong's various green initiatives including the recently-announced Climate Action Plan 2050, which calls for an end to coal power by 2035 and over US\$30bn of investments in the next 15-20 years.

"It further diversifies Hong Kong's sustainable investor base, and sets an important benchmark as the city continues to establish itself as a global centre for green and sustainable finance," said Sean McNelis, Global Co-Head of Debt Capital Markets at HSBC, which was joint global coordinator on all three currencies.

IOSCO calls for oversight of ESG ratings

The International Organization of Securities Commissions, which represents regulators overseeing 95% of the world's securities



exchanges, has recommended its members pay more attention to the use of ESG ratings and data products.

The recommendations call for more transparency over the methodologies used and how potential conflicts of interest are managed – a point that is raising concerns among regulators, especially where ESG ratings providers also offer consulting services.

"Investors should be able to understand and trust the ESG ratings and data products they use," said Erik Thedéen, Chair of the IOSCO Sustainable Finance Task Force and Director General of Finansinspektionen of Sweden. "Implementation of IOSCO's recommendations will help achieve that outcome."

Yasmine Fouad: Egypt on the global stage

Egypt's successful bid to host the COP27 summit makes Yasmine Fouad, the country's environment minister, a key figure in the next round of global climate change negotiations

Sharm al-Sheikh, the Egyptian beach resort known as one of the world's best diving destinations, could hardly be more different to Glasgow. Continuing the momentum from COP26, then, is a challenge that falls largely on Yasmine Fouad, Egypt's environment minister.

As host of the next United Nations climate conference – COP27 – in November 2022, Egypt aims to be a voice for African countries and other emerging markets that are feeling the effects of climate change but lack the funding they need to address them.

"It will be an African COP," Fouad said during a side event in Glasgow organised by the Paris Peace Forum. "I don't see any reason why adaptation and climate finance will not continue to be part of the issues that will be discussed."

Adaptation is a key topic for Egypt, one of the countries most vulnerable to the impacts of climate change. Its dependence on the Nile and its low-lying delta leaves it susceptible to both water scarcity and rising sea levels – the world's longest river provides over 70% of Egypt's fresh water and more than half its population is concentrated in the coastal Delta area.

Therefore the country's climate change programme has historically focused on water conservation, as well as coastal protection. Internationally, Egypt is a founding member and co-chair (with the UK) of the Adaptation Action Coalition, whose membership has now grown to 40 countries.

But Fouad has also brought emissions reduction – the mitigation component – to the fore. The Egyptian government effectively made climate change a cabinet-level priority in 2019, and the unveiling of the National Climate Change Strategy 2050 during the Glasgow conference integrates

sustainability with the country's economic agenda.

Priority projects include investing in renewable energy and mass transportation, which will cut emissions and improve living standards in notoriously congested cities. It is targeting 42% renewable energy by 2035, extending Cairo's metro rail network and building two high-speed monorail lines linking Cairo with new urban communities.

By 2025, 50% of public infrastructure spending will be for green projects, rising to 100% by 2030.

"Egypt is committed to deliver its fair share as part of the global efforts to tackle climate change," she said.

Sealing the deal

In the international arena, climate finance is a firm focus for Fouad, who was deeply involved in the finance piece of the negotiations at COP26 – reprising a role a she played at COP24 in Poland.

While the Glasgow summit failed to deliver the promised US\$100 billion a year from developed nations to support climate change in the developing world, the final pact did make progress. Developed countries pledged to reach the US\$100 billion target as soon as possible and to double the allocation of funds for adaptation for 2021-2025. Parties also agreed to discuss long-term climate finance beyond 2025.

Fouad's comments make it clear that this will be on the agenda again next year.

"For many countries around the world, securing the financing necessary to spur their own transition cannot happen without fulfilling the agreed upon support from developed countries," she said.

The capital markets are taking some of the burden. In September 2020, Egypt became the first sovereign in the Middle East and North Africa (MENA)

region to issue green bonds, coming to market with a US\$750 million five-year deal.

HSBC advised on the green financing framework and acted as a joint bookrunner on the financing.

"Issuing green debt in US dollars places Egypt squarely on the global stage with a serious statement of intent," said Nadeem Habib, Head of Financial Institutions and Public Sector at HSBC Egypt. "The enthusiastic investor response shows that the country is on the right track, both in its environmental policy and its debt management approach."

Fouad is clearly not afraid of the global spotlight. Her two decades of experience in government, UN organizations, NGOs and academia include a leading role in the UN's Convention on Biological Diversity as president of the 14th COP in November 2018 – also held in Egypt.

All this leaves Fouad well placed to handle the global scrutiny that will come with hosting next year's climate forum. Egypt is sure to face pressure to tighten its emissions targets and set a net zero target, which currently does not feature in its climate strategy. Some campaigners also argue its reliance on natural gas is delaying the shift to renewable energy. One recent scheme, for example, calls for the replacement of 250,000 petrol-powered cars over the next three years with gas-powered models, rather than zero-emission vehicles.

Inviting the world to Sharm al-Sheikh next year will give Egypt an opportunity to attract more private sector investment into climate projects, such as green hydrogen and solar power. Fouad, though, understands that the climate crisis goes far beyond national interests.

"As the nominated host of COP27, Egypt aims to continue to lead and shape the global cooperation on the environmental policy arena," she said.

"I don't see any reason why adaptation and climate finance will not continue to be part of the issues that will be discussed"



Methane: Why is this invisible gas attracting so much attention?

The Global Methane Pledge signed on 2 November was an early success for organisers of the COP26 climate summit. But carbon dioxide (CO₂) tends to dominate decarbonisation conversations, so how important can methane (CH₄) be?

There is more CO₂ in the atmosphere and it is more persistent, meaning it is still the main focus of net-zero pathways – but as a “short-lived climate forcer”, CH₄ is more volatile: it remains in the atmosphere for just 10-12 years, compared to more than a century for CO₂, and its warming impact is up to 80 times greater than that of CO₂. This means that about 30% of current atmospheric warming comes from CH₄.

Because CH₄ disperses more rapidly, cutting emissions early will have a disproportionately beneficial impact on long-term targets: a report earlier this year by the UN Environment Programme and the Climate and Clean Air Coalition calculated that a 30% reduction this decade could avoid 0.3°C of atmospheric warming by 2045. EU Commission chief Ursula von der Leyen labelled it “the lowest hanging fruit” among mitigation measures.

As with carbon dioxide, much of today’s methane emissions are down to human activity.

About 40% of atmospheric CH₄ is emitted by natural sources such as peat bogs and wetlands. Of the portion generated by human activity, agriculture – including livestock and rice production – accounts for 40%; the extraction and transport of fossil fuels 35%; and organic matter in landfills 20%.

The Intergovernmental Panel on Climate Change (IPCC) attributes half of the 1.1°C global rise in temperatures since the pre-industrial era to CH₄. In 2019, global CH₄ atmospheric concentration had reached 260% of pre-industrial levels.

The methane pledge made at COP26 aims to reduce CH₄ emissions by 30% by 2030 compared with 2020 levels. More than 100 countries signed,

including 15 of the top 30 national CH₄ emitters. The pledge is not binding on individual countries – rather, the target is shared across all signatories, which together will work toward achieving the cuts, with the US and EU in the lead.

The main short-term focus will be fossil fuel industries: leaks from gas pipelines and abandoned wells can be tracked by satellite to a ‘point source’, making them easily detectable and relatively inexpensive to fix. Coal mines, which vent CH₄ whether they are in production or abandoned, are responsible for more emissions than oil and gas combined, and can be fixed nearly as economically.

The US has already proposed methane reduction measures as part of the US\$2.2 trillion Build Back Better bill, a package of social spending that cleared the House of Representatives in November. The legislation includes fees for methane leaks from major oil and natural gas producers beginning at US\$900 per tonne in 2023, which could avoid emissions equivalent to 172 million tonnes of CO₂ equivalent by 2050, according to thinktank Energy Innovation.

The US has used this focus on methane to signal its renewed leadership on global climate initiatives under the Biden administration, and the Senate vote on the Build Back Better bill, expected in mid-December, will be closely watched as a guide to the chances of meeting the global 2030 target – especially as several major emitters were conspicuously absent from the pledge.

It also puts diplomatic pressure on Russia, China, India and Australia, the notable holdouts. Since COP26, China has already committed to publish a national methane action plan, having pledged to ramp up cooperation with the US on climate change issues – including methane – towards the end of COP26.

The UNEP-CCAC report also notes that methane

emissions will also fall as an indirect result of other decarbonisation measures, such as the switch to renewable energy generation, energy efficiency improvements, and emissions pricing. Even those countries that did not adopt the COP26 pledge, therefore, can claim to be reducing CH₄ alongside their CO₂ abatement programmes.

There are other benefits, too. Methane is also a key factor in poor air quality, contributing to the formation of smog and impacting human health. The CCAC reports that a 45% reduction of CH₄ emissions would prevent 260,000 premature deaths and 775,000 asthma-related hospital visits each year – as well as the 73 billion hours of lost labour from extreme heat, and 25 million tonnes of crop losses as a result of methane’s contribution to climate change.

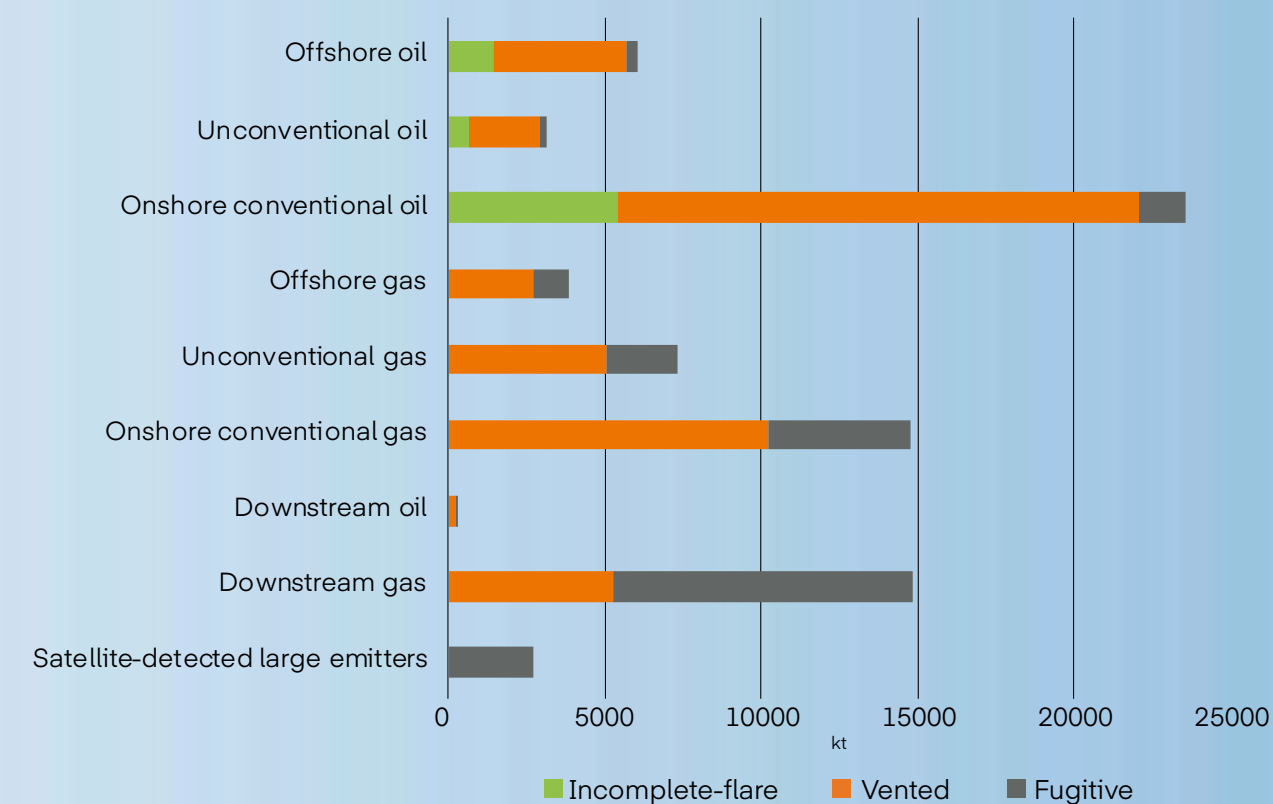
260,000

Premature deaths prevented each year by a 45% reduction in methane emissions

“Methane is also a key factor in poor air quality, contributing to the formation of smog and impacting human health”

World Methane Emissions 2020

IEA estimated global total: 76,424 kilotons



Source: IEA (2021), Methane Tracker Database, All rights reserved

Turning science fiction **into reality**

This month, we concentrate our energy on nuclear fusion, a process with the potential to solve the climate crisis by unlocking limitless amounts of clean power from fuels found in water. Investment in fusion technology is growing rapidly, but commercial generation remains years away.

The term 'startup' is an odd fit for the growing number of companies working on nuclear fusion technology. The concept, after all, has been in development for 60 years since scientists in the Soviet Union first proved that atomic particles could be combined, in a reaction releasing huge amounts of energy.

In purely financial terms, though, Silicon Valley jargon seems entirely appropriate. Private investors have now poured US\$2.3 billion into companies working on nuclear fusion technology, according to the Fusion Industry Association. In the latest major fundraising to be made public, US-based Helion raised US\$500m in November in a Series E round led by veteran tech investor Sam Altman – the most so far for any fusion venture in the private sector.

Helion, with a slick website showing employees in black company t-shirts, aims to demonstrate commercially viable power at a test site in Washington State by 2024. Its investors, including Peter Thiel's Mithril Capital, Facebook co-founder Dustin Moskovitz and sustainability-focused Capricorn Investment Group, have committed to cough up another US\$1.7bn to commercialise the technology if the prototype is a success.

It's easy to see the attraction. Nuclear fusion, the same process that powers the sun, has the potential to produce almost limitless amounts of energy from clean and abundant fuels without many of the disadvantages that come with the fission processes used in today's nuclear power plants. The main fuels used in fusion research projects are deuterium and tritium, isotopes of hydrogen that can be extracted from water. One glass of deuterium could provide the same amount of energy as 1 million gallons of oil, according to Helion.

The International Atomic Energy Association (IAEA) describes it as among the most environmentally friendly sources of energy, since the process does not release carbon dioxide or other greenhouse gases. A fusion power plant, according to the IAEA, is an inherently safe physical process with no risk of meltdown or explosion, and produces no dangerous radioactive waste.

The science is compelling. Commercialising the technology, however, is another matter. Fusion reactions take place at such extremes of pressure and temperature (around 100 million °C) that the process currently consumes more energy than it produces. Scientists have been trying to solve that problem since the 1950s, and some still think it is impossible.

Until recently, fusion research has been mainly conducted in the public sector, given the huge costs involved. The biggest fusion experiment is the International Thermonuclear Experimental Reactor (ITER) project in Cadarache, France, which brings together seven international partners (China, India, Japan, South Korea, the EU, the Russian Federation and the United States). That facility is designed to produce 500 megawatts of fusion energy, but its timeline is uncertain: the collaboration has been running since 1984.

Another EU-backed project, the International Fusion Materials Irradiation Facility (IFMIF), is planned in Japan, and there are various plans to build demonstration power plants using the processes pioneered by ITER.

None of this will be quick. The first demo plant is expected to be built by 2040, putting electricity generation on track for the second half of the century, according to the IAEA.

The private sector, however, is hoping to beat that timetable by years – if not decades.

The Fusion Industry Association and UK Atomic Energy Authority, in an October survey of 23 fusion power companies, found that 83% believe fusion power will be on the grid by the 2030s. Of the companies surveyed, 12 were founded in the last five years.

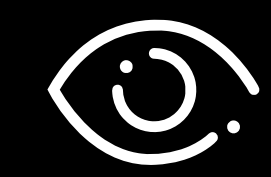
The optimistic case holds that recent advances in technology bring the timeline forward dramatically – such as the generation of powerful magnetic fields needed to contain the reaction. Scientists from the Massachusetts Institute of Technology (MIT) and Commonwealth Fusion Systems in September successfully tested the world's strongest high temperature superconducting magnet, and are now working on a demonstration power plant using the new technology.

All this has caught the attention of private sector backers that include a host of well-known venture capitalists, billionaires and institutions, ranging from energy companies to sovereign wealth funds.

Commonwealth Fusion Systems, the MIT partner, has raised money from Singapore's Temasek Holdings as well as Italian oil company Eni and Norway's Equinor – among others. Malaysian sovereign fund Khazanah Nasional and Jeff Bezos are among the backers of General Fusion, a Canadian firm that is planning to build a demonstration fusion plant in the UK. In other examples, Google has invested in California-based TAE Technologies, and Chevron has pumped money into Seattle-based Zap Energy.

Fusion's potential to transform global energy systems, replace fossil fuels and end global warming is a goal worth striving for. Whether the public or private sector wins the race to develop a commercially viable prototype, the growing interest – and investment – raises the chances of fusion power one day becoming a reality.

US\$2.3bn
Private capital invested in companies working on nuclear fusion technology sector



Sustainable mobility week

HSBC's Sustainable Mobility Week in November provided detailed insight into the state of the transportation sector with sessions focusing on topics such as the transition of incumbent transport and mobility players, such as European car manufacturers, to more sustainable business models. The event also explored the role of batteries, semiconductors and sustainable aviation fuel, among other topics.

Henning Cosman, Global Head of Future Transport & EU Autos Research, HSBC, described transport as the "second frontier" for decarbonisation, behind only power generation.

"It is quite straightforward to decarbonise road transport, with progress already well established in some territories: Germany has 25% EV penetration, while China is not far behind," he said. "But the future is not just about decarbonisation: shared mobility and connectivity are also key elements of the transportation transformation."

EV penetration is growing fast, but supply chain bottlenecks are proving a challenge.

Yuqian Ding, Head of China Auto Research, HSBC, predicted that EV penetration in China will reach 59% by 2030, up from the current 21%, as growth becomes increasingly organic and costs come down versus petrol-powered cars. Already lower-end models can be bought for US\$4,000 in China.

"The rise of Generation Z will provide a boost to sales: they are EV-friendly, tech-savvy and favour local brands," said Ding.

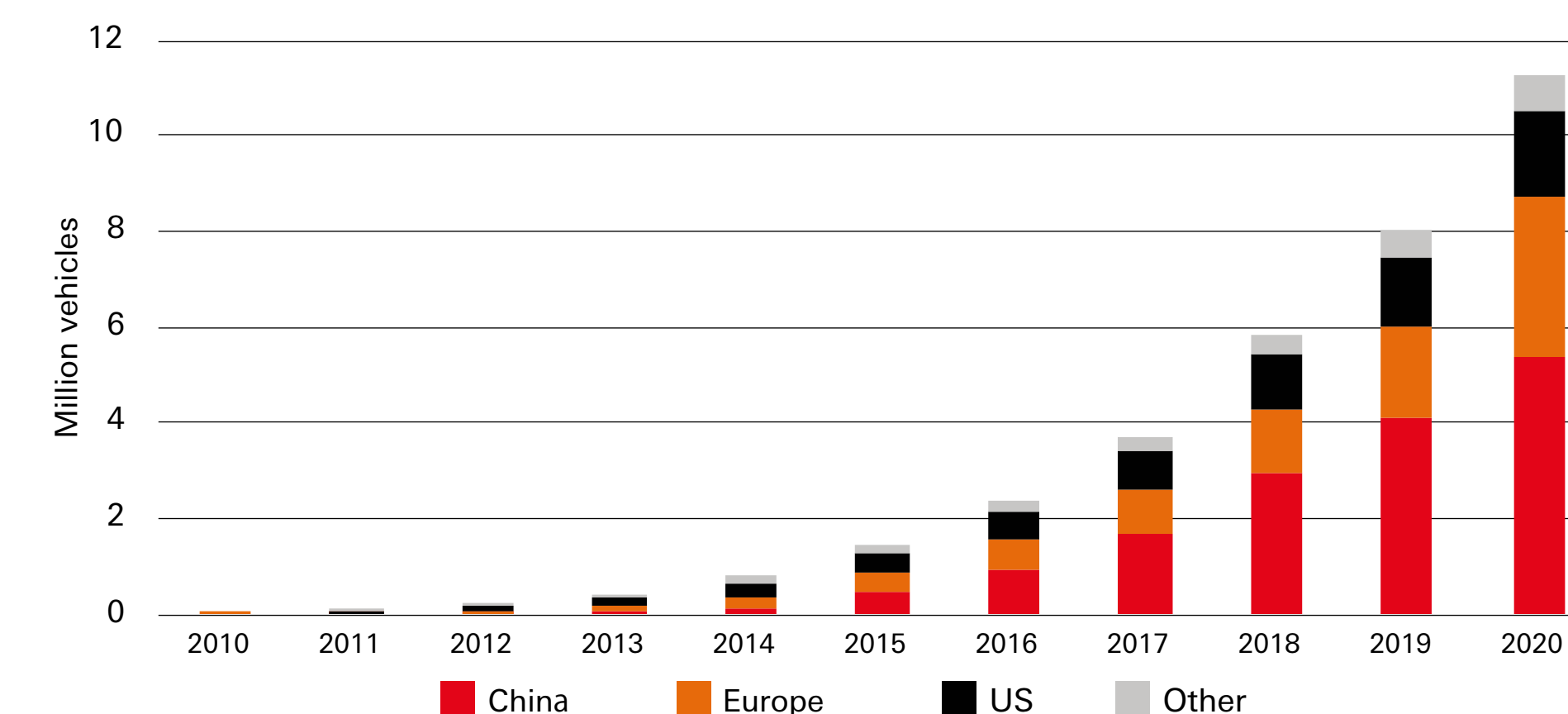
Falk Meissner, Partner, Roland Berger, said the shortage of chips needed for today's vehicles is a systemic mismatch in the supply chain that will not be solved overnight. With new capacity focusing on more advanced chips, auto manufacturers will need to compete with other industries for access to semiconductors, keeping prices high.

Kersten Heineke, Partner, Future Mobility, McKinsey,

explained why further disruption is on the way as the world moves towards a net zero future. EV adoption alone will not be enough: even if 75% of new car sales in Europe are fully electric, there will still be a 40% gap to the EU's 2030 emissions target. To get the transport sector on track, he said, the whole lifecycle of vehicles needs to be decarbonised, including production. Shared mobility and autonomous driving technology is also needed.

Alastair Blanshard, Senior Manager Sustainable Aviation, ICF, discussed the work being done to generate sustainable aviation fuel (SAF) from organic waste. Production volumes today are limited and mainly derived from lipids and fats, such as cooking oil, tallow or distilled corn oil, but the wide range of potential raw materials – like municipal solid waste, woody biomass and agricultural waste – will present investment opportunities, particularly as government incentives encourage airlines to make the switch, he said.

China leads the world's EV fleet



Source: IEA, Global electric vehicle stock by region, 2010-2020. All rights reserved.



Erwan Rambourg, GLOBAL HEAD OF CONSUMER AND RETAIL RESEARCH, HSBC

Future consumer week

Sustainability has become a hot topic in the consumer and retail sector as shoppers increasingly gravitate towards greener products and socially responsible brands. HSBC's Future Consumer Week zeroed in on these ESG issues through a series of expert presentations.

Didier Bergeret, Director of Sustainability at The Consumer Goods Forum, described sustainability as a governance issue that affects every connection across the supply chain. While climate change dominates the agenda, human rights issues such as forced labour cannot be ignored.

Robert Kammerer and Dr. Jan Joachim Herrmann, Partners at PwC Germany, explained the significance of Germany's new Supply Chain Due Diligence Act, which will require corporations to identify and mitigate human rights and environmental issues across their whole supply chain, starting from 2023. Rather than seeing it as a compliance cost and potential penalty, corporations should look at the new law as a way to build consumers'

trust in the quality of their supply chains, they said.

A new French law that forbids companies to destroy their own goods is also forcing brands to improve sustainability along the value chain, according to Stanislas de Quercize, former CEO of Cartier.

Luxury brands are now paying workers to disassemble their unsold items to recover and reuse materials. High-quality synthetic materials such as lab-made diamonds and plant-based leather also are being introduced into the material mix, while some brands are recovering gold and gems from unused jewellery.

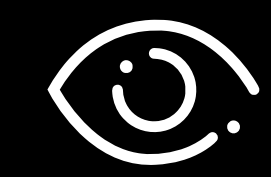
Erwan Rambourg, Global Head of Consumer and Retail, HSBC, said the luxury market had been complacent about sustainability given strong sales growth and hefty margins.

"This is largely because the Chinese market has been less interested in questioning ESG credentials. That is, however, already changing quickly," he said. "Sustainability will become a differentiating factor and an important marketing tool in luxury."

While one-third of Asian consumers are open to behaving more sustainably, sustainability alone is rarely the top motivator, according to Trezelene Chan, Head of Sustainable Transformation Practice at consulting firm Kantar. 77% of consumers prioritise saving money over saving the planet, and 62% don't want to take the risk of trying something new. Brands can help close the gap through a combination of innovation, communication and partnerships, she said.

ESG awareness among Asian consumers is growing at the fastest rate globally, said **Karen Choi, Head of Consumer and Retail Research Asia Pacific, HSBC**. Retail and consumer goods companies see this as part of a global trend and are willing to invest for the long term.

"Younger people care more about ESG, but they are too cash-strapped to pay more for it. As such, bigger firms seem willing to absorb the additional cost initially while improving volume growth and hoping to drive economies of scale," she said.



HSBC Global Research notes

Net zero in the Gulf

The run-up to COP26 produced the first net zero pledges from the Gulf Cooperation Council (GCC) region, with the United Arab Emirates and Saudi Arabia each committing to reach net zero emissions – the UAE by 2050 and Saudi Arabia by 2060.

HSBC Global Research notes the significance of the ambitions from the two oil states, highlighting that Saudi Arabia is both one of the world’s largest emitters per capita and a member of the G20. Saudi Arabia’s plan includes specific targets for Riyadh, the capital, of halving emissions by 2030 and raising electric vehicle penetration to 30% by the same deadline. The net zero plans also include massive rail construction, renewable energy development and 10 billion net trees, with a total bill of some US\$168 billion.

HSBC’s Amit Shrivastava and Linnet Cotterill argue that net zero is a credible ambition for the two domestic economies, but also point to the reluctance to curb investment in fossil fuel production, which is inconsistent with the net zero trajectory calculated by the International Energy Agency. As a matter of fact, Saudi Arabia plans to increase its oil production capacity, via Saudi Aramco, from 12m to 13m barrels a day by 2027, while the UAE, via the Abu Dhabi National Oil Company (ADNOC), also plans to ramp up its production capacity from just over 4m barrels a day to 5m within the next decade.

A silver lining to all this is that Aramco and ADNOC have an extremely low carbon intensity, which is an argument in favour of them taking on unabatable oil and gas production from higher-emitting producers – at least from a climate perspective. Overall, the GCC commitments deserve a “cautious welcome” from the international community.

Read more about this topic here:

• **COP26: Saudi Arabia commits - Net zero by 2060 but maintaining oil exports**

• **COP26 triggers a GCC first - UAE commits; Saudi also in the running**

The other COP

The 15th round of the UN’s Biodiversity Conference (COP15) – this time split into two phases in October 2021 and April 2022 – produced an agreement by over 100 countries to prioritise conservation and work towards a post-2020 global biodiversity framework.

The Kunming Declaration fell short of an agreement to protect 30% of the world’s land and oceans by 2030, lacks specific targets and is not legally binding. But, as **HSBC Global Research** points out, the declaration raises some key points for future policy discussions, such as the role of indigenous communities in conservation and the link between natural capital and climate change.

Investors need to be aware of the growing focus on biodiversity and its implications for nature-intensive sectors such as mining, agriculture, chemicals and real estate. Managing these risks will require greater understanding – through disclosure and data collection – of how companies use natural resources such as water and how they control waste and pollution.

HSBC’s Lucy Acton, ESG Analyst, also expects investment in natural capital to continue, and the Kunming Declaration may boost interest in projects that promote local and indigenous communities.



Lucy Acton
ESG ANALYST, HSBC

Read more about this topic here:

• **ESG Matters - The Kunming Declaration**

India’s green dream

India’s growth trajectory gives it an opportunity to leapfrog into new green technology that is “too big to miss”, according to **HSBC Global Research**. The country’s commitment to a net zero future requires a dramatic shift in the energy mix and industrial processes, but this pledge will also help attract external financing and improve access to overseas markets for products with a green label.

HSBC estimates that 60% of the capital stock needed for India’s manufacturing sector in 2040 has not been built yet, leaving it well placed to manage the green transition and raise its profile in the global manufacturing supply chain. Doing so, however, will mean overcoming some major obstacles, particularly the fragile state of state-owned power distribution companies (discoms) and the lack of a consolidated energy transition framework.

In a note released shortly before India’s pledge to reach net zero by 2070, **Pranjul Bhandari, HSBC’s Chief Economist for India**, argued that India needs to develop a coordinated institutional framework for emissions reduction, outlining a series of reforms and incentives that will be require. India’s commitments at COP26, including a 50% target for renewable energy by 2030, are a step in that direction.

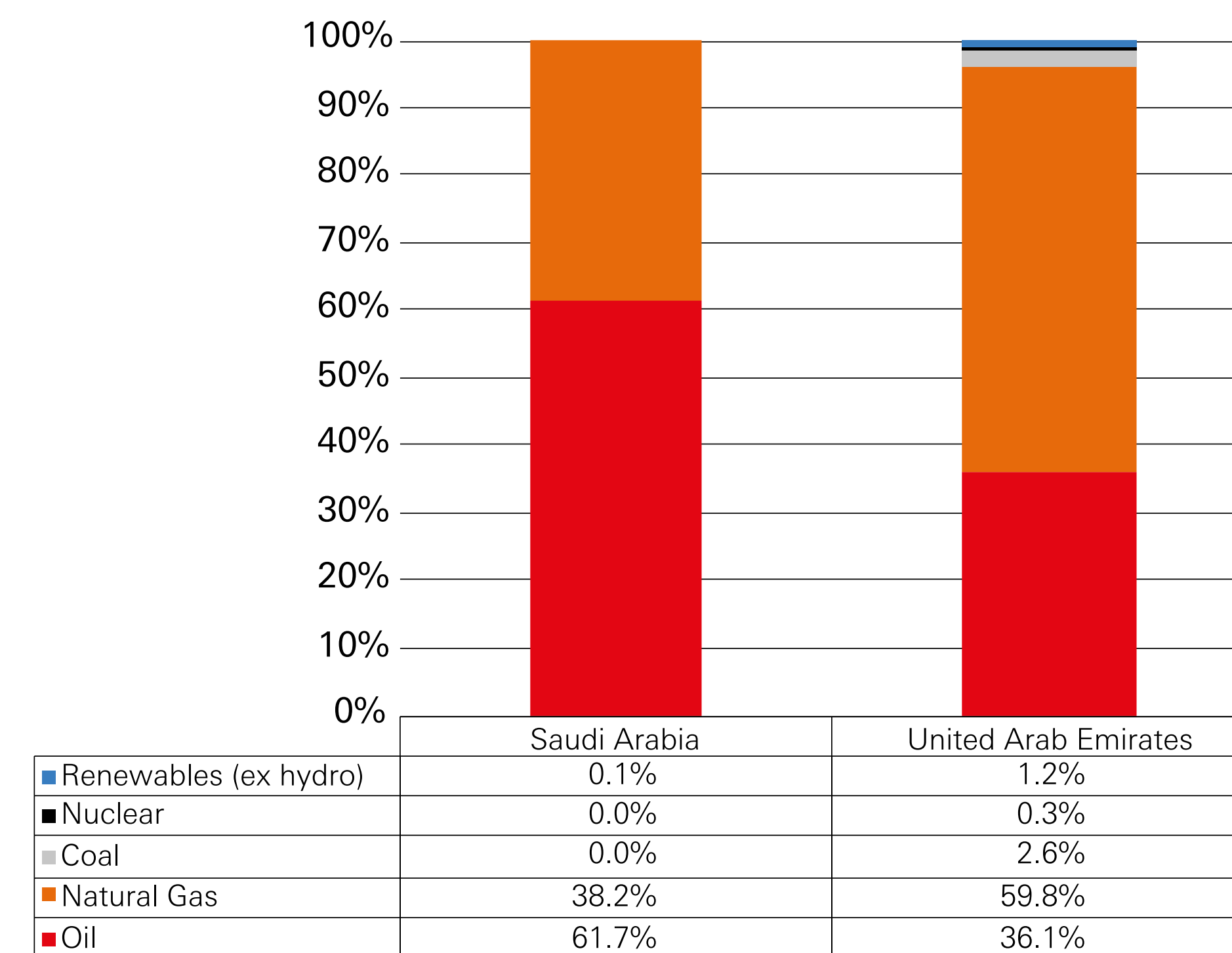


Pranjul Bhandari,
CHIEF ECONOMIST
FOR INDIA, HSBC

Read more about this topic here:

• **India’s green dream - A sizeable opportunity ... if obstacles are removed**

Primary Power Consumption in GCC by Fuel 2020



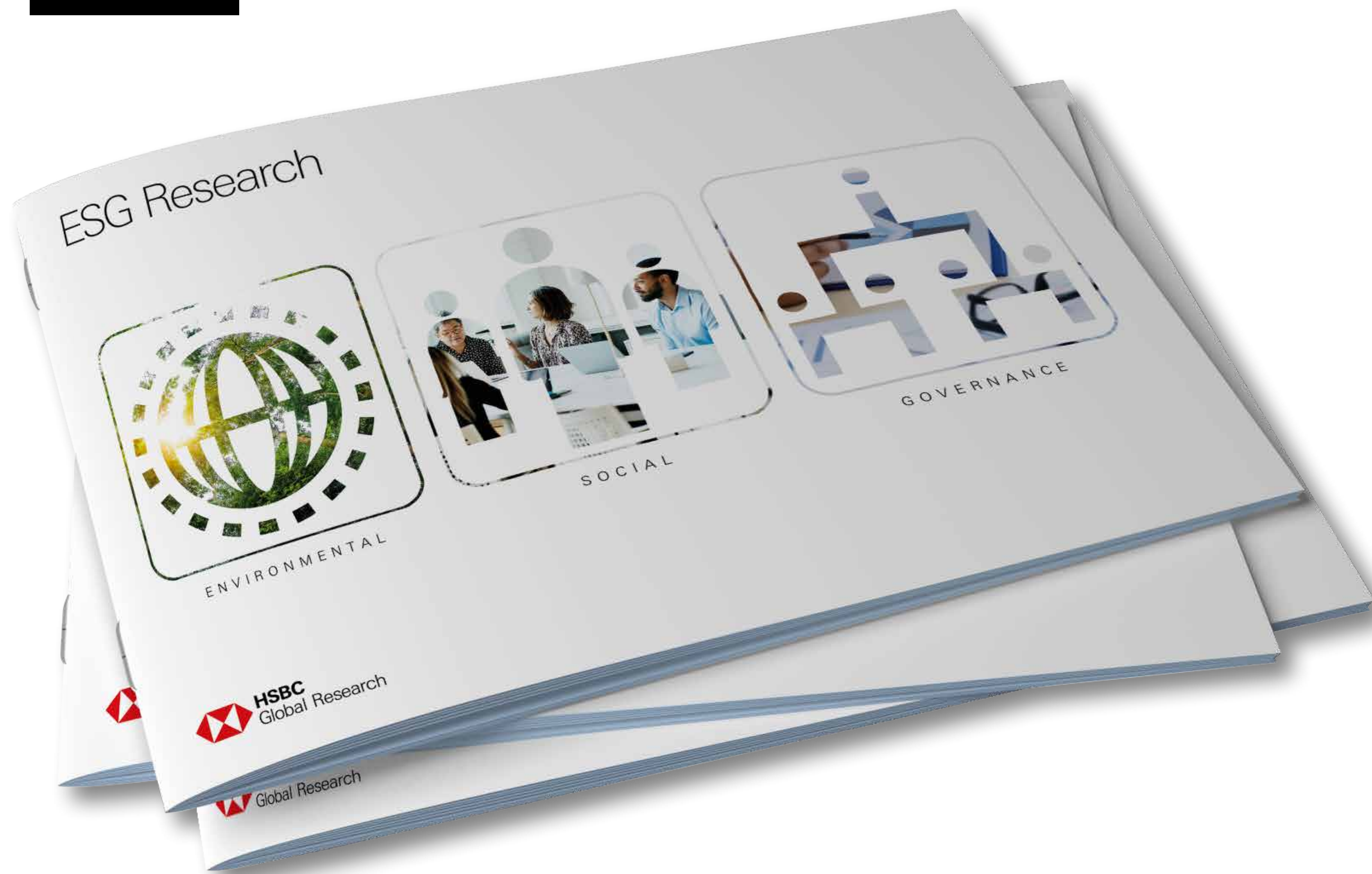
Source: bp Statistical Review of World Energy

For any questions about HSBC’s Global Research, email AskResearch@hsbc.com

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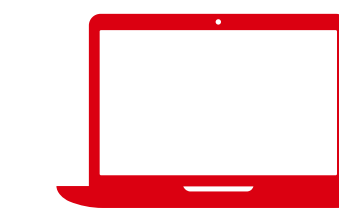
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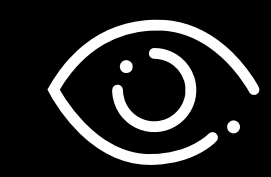
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Beyond symbolic

Find out how we helped finance the UK's Green Industrial Revolution with the world's biggest green bond

The UK, host of this year's COP26 UN Climate Conference, raised an unprecedented £10 billion from its first sovereign green bond in September. The 12-year "green gilt" was the largest inaugural green bond offering in history and attracted a record level of investor demand. Combined with a second £6 billion launch of a new 32-year bond a month later, the deal created a major new market for green sterling assets.

Rather than costing taxpayers more, the UK's debut green issuance confirmed that surging demand for green assets is helping borrowers save money. The new bond, due to mature in July 2033, priced at a yield of 0.87%. The slightly higher price that investors were willing to pay for the transaction meant this figure was approximately 0.025 percentage points lower than the expected price for a typical conventional gilt.

"This 'greenium' implies a saving of £28 million for the Treasury over the life of the bond, and is the largest seen so far for a sovereign green bond," said Asif Sherani, head of SSA Debt Capital Markets at HSBC, who worked on the deal.

In theory, Green bonds channel funds from investors towards projects with clear environmental benefits. For countries with easy access to the capital markets, the concept has at times been seen as largely symbolic, but this is changing as governments look for ways to ramp up spending on low-carbon technologies to

meet their emissions targets.

The COP26 meetings are an important backdrop: world leaders are under pressure to raise their ambitions, and access to finance will be a key consideration.

Proceeds from the deal will be earmarked from the Treasury's general budget for a specific list of projects – including green buses, offshore wind and carbon capture – in line with the government's Ten Point Plan for a Green Industrial Revolution.

The UK has also committed to report on the social impact of its investments, emphasising the positive impact of climate initiatives through job creation and other initiatives, such as supporting development in the north of England. This raises the bar for impact reporting and fits well with the global focus on social benefits in the wake of the Covid-19 pandemic.

"It is now beyond doubt that green bonds can deliver value for money for the British taxpayer," said Sir Robert Stheeman, chief executive of the UK Debt Management Office. "The transition to net zero is also an opportunity to invest in a fairer and more inclusive society."

- Visit [HSBC.com](https://www.business.hsbc.com/sustainability/inspiration-from-our-clients) for more Inspirations from our clients



ABC of ESG

The world of ESG has its own sometimes dizzying array of acronyms and terms. Get to grips with some of the key concepts here

CARBON CAPTURE AND STORAGE (CCS)

A process whereby CO₂ is captured from industrial facilities and transported for storage, often in a geological formation such as an oil and gas reservoir. This process prevents the CO₂ from entering the atmosphere. The IPCC estimates that CCS has the capacity to reduce the costs of stabilising CO₂ in the atmosphere by 30% or more – but some critics believe it can discourage the transition to lower-carbon processes and technologies.

CARBON OFFSET

Allows companies or individuals to compensate for their CO₂ emissions by buying a corresponding reduction in emissions elsewhere. Companies can use carbon trading schemes or pay carbon taxes, while individuals can use offset schemes to neutralise their carbon footprint.

CARBON FOOTPRINT

The total CO₂ emissions caused by an organisation or individual over time.

CARBON TRADING

Enables companies to buy or sell permits that allow for the emission of a particular amount of CO₂. The European Union Emissions Trading Scheme (EU ETS) is the largest of these schemes and works on the cap-and-trade principle, where a cap is placed on the total amount of CO₂ that can be emitted within the trading zone and that limit is reduced over time. Pricing carbon in this way can also promote investment in low-carbon technologies.

CLIMATE CRISIS

Term used to describe the consequences of global warming and subsequent climate change. If the world fails to limit global warming below 2 degrees centigrade from pre-industrial levels through decarbonisation, there will be significant

consequences for biodiversity, ecosystems, food and water security and infrastructure from extreme weather events. Some believe that the climate crisis has already begun.

CRYPTOCURRENCY

An encrypted digital token based on blockchain technology, such as Bitcoin. Some cryptocurrencies have been criticized for the energy-intensiveness of “mining,” or updating the blockchain and creating new tokens.

DECARBONISATION

The process of reducing the carbon emissions of an organisation or economy. Techniques for decarbonisation include reducing the use of fossil fuels, increasing renewable energy use, switching to electric transport, agricultural change and CCS.

ESG

The acronym for Environmental, Social and Governance is used to refer to the non-financial policies and activities of an organisation and its commitment towards responsible behaviour and sustainable growth. Financing and investment in accordance with ESG principles are growing exponentially.

ELECTRIFICATION

Road transportation accounts for around 18% of total global emissions and will need to make significant CO₂ reductions for economies to meet net zero targets. Vehicles using electricity from renewable sources can make a key contribution to this goal.

GREEN HYDROGEN

Hydrogen does not generate greenhouse gases at point of use, but most current methods of producing hydrogen involve fossil fuels. Using renewable energy to power the electrolysis that produces hydrogen makes “green” hydrogen emissions-free.

GREEN TAXONOMY

A green taxonomy is a classification system that establishes a list of sustainable economic activities, providing a common basis for companies and investors to use. The EU has recently created a green taxonomy that may well become the global standard.

GREENHOUSE GASES (GHG)

Gases in our atmosphere that include water vapour, carbon dioxide (CO₂), nitrous oxide and methane. These gases absorb infrared radiation and trap heat in our atmosphere, causing global warming.

GLOBAL WARMING

The increase in global surface air and sea temperatures over a 30-year period caused by human activities that emit greenhouse gases. Global warming is expressed relative to pre-industrial temperatures. New global commitments aim to keep global warming well below 2°C by the end of the century aim to avoid catastrophic climate change.

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC)

The United Nations body for assessing climate change science. It provides regular reports on climate change impacts and risks as well as options for adaptation and mitigation. The IPCC is considered the most reliable and credible source of climate change science.

NET ZERO

Describes the situation in which no additional emissions are being added to the atmosphere. While emissions will continue to be released, an equivalent amount will be absorbed either through natural carbon sinks such as forests or through technology such as CCS.

PARIS AGREEMENT / COP21

The 21st Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change was held in Paris in 2015. A legally binding international treaty was agreed at COP21, called the Paris Agreement. Adopted by 196 parties, the treaty sets out the goal to limit global warming to well below 2°C.

RENEWABLE ENERGY

Electricity that comes from a sustainable source such as solar power, wind or waves. These sources do not emit carbon dioxide or other greenhouse gases. Green hydrogen also has potential as a source of emissions-free energy.

SDGS

The United Nations’ Sustainable Development Goals (SDGs) are a blueprint for a more sustainable future for people and the planet. There are 17 interlinked goals that recognise that ending poverty and deprivation can only be achieved through a range of goals including health, education, reducing inequality and tackling climate change.

TCFD

The Taskforce on Climate-Related Financial Disclosures was established in 2020. It provides recommendations on financial disclosures that are becoming accepted as the gold standard globally. These disclosures will aid understanding of exposure to climate risks and help investors better take these into account in their decision-making.

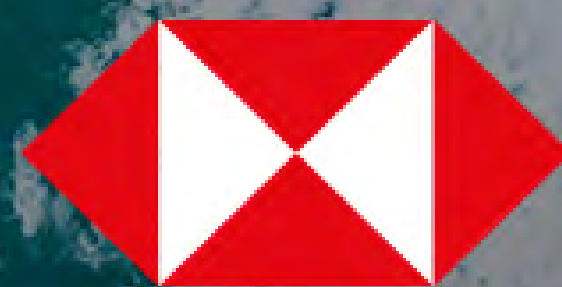
UNPRI

Launched in 2006, the United Nations Principles for Responsible Investment is a voluntary set of investment principles that provide a framework for incorporating ESG considerations into investment processes and decisions. There are now more than 3,000 signatories with collective assets under management of over US\$1 trillion.

How do we fix
a problem with
no boundaries

by pushing
our own?

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