



Climate Statement

August, 2020

Why we're issuing a Climate Statement

Deutsche Bank has been very active on climate-related issues over the last 12 months and is continuing to implement changes across all businesses.

Deutsche Bank was early to recognise the fight against climate change as a major challenge of our time.

Our own business operations have been climate neutral since 2012 – making us one of the first financial service providers to embark on this path. But this was only the beginning. As a signatory to the Paris Pledge for Action in 2016, the bank made an explicit commitment to contribute to achieving the targets of the Paris Climate Agreement. In July 2019, Deutsche Bank made a broader, long-term commitment to sustainability, placing it at the heart of its business strategy. Even though we have focused on this issue for years, we have made significant progress over the last 12 months. We have set ourselves specific targets for sustainable business and formulated bank-wide criteria for what we define as sustainable. As a signatory to the German financial sector's commitment on climate action we have pledged to structure our lending portfolios in line with the targets of the Paris Agreement on Climate Change. At the same time we have tightened our policy governing business activities in the fossil fuels sector.

This Climate Statement outlines how our bank contributes to sustainable and climate-friendly economic activity. It covers the entire spectrum from sustainable finance and managing climate risk and our own carbon footprint right

through to how we encourage our employees to identify with our drive towards greater sustainability.

The renowned climate expert Stefan Rahmstorf provides an introduction to the topic. In an interview our CEO Christian Sewing explains the role that climate protection plays in our business model. In addition, senior managers from the bank describe how our commitment to sustainability is changing their day to day jobs.

Our Group Sustainability team has supported and coordinated this transformation for many years and together with the Sustainability Council chaired by Christian Sewing, it is laying the groundwork for the bank-wide transformation to pick up pace. Our aim with this statement is to communicate this irreversible shift towards climate protection and sustainability which we are experiencing within our bank and observing among our clients and those around us. We hope you will find it informative and interesting.

Viktoriya Brand
Head of Group Sustainability

Viktoriya Brand: "We are experiencing an irreversible shift towards climate protection and sustainability within the bank and in the environment in which we operate."





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Sustainability approach and climate change

Deutsche Bank's commitment to sustainability is long-standing. Early on, in 2000, we committed ourselves to the Ten Principles of the UN Global Compact as one of the early signatories, and we are a member of the United Nations Environment Programme Finance Initiative (UNEP FI). As a signatory to the United Nations' Principles for Responsible Banking as well as its Principles for Responsible Investment, the bank is committed to responsible banking and investment practices.

Based on our long-standing commitments, in July 2019, sustainability has become a central component of our corporate strategy, "Compete to win".

To embed sustainability holistically throughout the bank, we are focusing on four dimensions:

→ Sustainable finance: Making sustainability an integral part of our client offerings, as well as offering products and services that help our clients to transform business models towards a low-carbon future.

In May 2020, we set ourselves the target to increase the volume of sustainable financing and our portfolio of sustainable investments under management to over 200 billion euros by 2025.

→ Policy and commitments: Integrating environmental and social considerations into the bank's risk management framework. In doing so, we follow internationally recognised principles and standards. In June 2020, we articulated our commitment to align our lending portfolios to the targets set by the Paris Agreement. In addition, in July 2020, we expanded our fossil fuel policies and formally joined the Equator Principles Association.

→ Our own environmental footprint: Continuously reducing our own environmental footprint. We have been operating carbon neutrally since 2012. As part of this commitment, we have been reducing our energy consumption and greenhouse gas emissions. Compared to 2010, we have reduced our energy consumption by more than 25% and cut our greenhouse gas emissions by half. In 2019, about 80% of our

electricity was from renewable sources and we have committed ourselves to expanding this to 100% by 2025.

→ Thought leadership: Being a leading voice in the public debate on climate change and sustainable growth as well as actively engaging in regulatory discussion and innovative initiatives.

As a member of the Banking Environment Initiative (BEI), in 2019, we collaborated in Bank 2030, a project that set out to understand how banks can accelerate the financing of a low-carbon economy and develop a vision for climate-progressive banks. Deutsche Bank is also represented in the Sustainable Finance Advisory Council, inaugurated in 2019 by the German Federal Government to support the development of a national sustainable finance strategy. Moreover, in 2020, we launched dbSustainability, a dedicated sustainability research platform providing thought-provoking, value-added and aligned content spanning thematic, macro, quantitative and individual company analysis (dbresearch.com).

Sustainability covers a broad spectrum of environmental and social matters, with climate change being one of the defining challenges of our time. As a leading global financial institution, we recognise the role we have to play in addressing this challenge and helping to shape the global change to a sustainable, climate-neutral and social economy.

By signing the Paris Pledge for Action in 2015, we articulated our commitment to contribute to the goals of the Paris Agreement. We reinforced this statement by joining the German Financial Sector's collective commitment to Climate Action in June 2020. We welcome the European Union's ambition of becoming carbon-neutral, and will support efforts in advancing the European Commission's action plan on sustainable finance as well as transitioning the economy, as laid out in the Commission's EU Green Deal.

»Giving up is not an option for me«

Professor Stefan Rahmstorf is one of the most prominent campaigners seeking to educate people about the fight against climate change.

“The Doomsday Glacier has reached tipping point” was the headline of a news story in February of this year. It is one of mightiest glaciers in the Antarctic. A research project now aims to establish whether it has already passed this tipping point, meaning that all its ice will melt. Since the glacier holds back the entire mass of ice that makes up the West Antarctic Ice Sheet, the consequences would be dramatic. If it were to drift into the ocean, writes the Süddeutsche Zeitung newspaper, “it would even put Hamburg underwater.” Stefan Rahmstorf retweeted that article, sharing it with his 50,000-plus followers.

This is only one of many almost inconceivable scenarios for the impact of climate change. The departmental head at the Potsdam Institute for Climate Impact Research uses direct language to reach as many people as possible. His creed is to make clear statements instead of using long-winded jargon: “Believing in soothing fairy tales is not a solution. You need to calmly face up to inconvenient facts as well.”

For example: the acts already perpetrated by mankind will have consequences for all time. “Our CO₂ emissions are a cumulative phenomenon, which means that CO₂ collects in the atmosphere and remains there,” says Rahmstorf. The effect of this: “50,000 years from now the level of emissions we have already generated will still be so high that the next natural ice age will fail to occur.”

But you don’t have to look that far into the future. What we can already say is that anyone not yet old enough to collect their pension will

FACTS ABOUT CLIMATE CHANGE

The volume of CO₂ in the atmosphere is currently higher than it has ever been in the last three million years.

Never during the last 120,000 years has the global temperature been higher than it is today.

At the end of the last ice age, global sea levels rose by 120 metres after warming of between 4 and 5 degrees. Today there is still enough ice on earth to raise sea levels by another 65 metres.

Around 100 per cent of modern-era global warming has been man-made. The figure is probably even slightly higher than that because natural processes have helped counteract the warming a little.



Stefan Rahmstorf is a climatologist and departmental head at the Potsdam Institute for Climate Impact Research and Professor of Ocean Physics at the University of Potsdam. His main areas of research are climate changes in the history of the earth and the role of the oceans in climatic activity.

experience the painful consequences of climate change if humanity does not take rapid action. Global CO₂ emissions need to be halved in just the next ten years (in order to then reduce them continuously towards zero) if global warming is to be halted at well below two degrees. If this warming exceeds two degrees – compared to pre-industrial levels – the consequences of climate change can no longer be kept in check. If instead the Paris Agreement is observed, then sea levels will rise more slowly, coastal towns will be rescued, famine crises and catastrophic droughts, and probably even wars, will be averted. People often don’t realise that: “The main objective is not to protect the environment but, first and foremost, to prevent an existential crisis for mankind,” says Rahmstorf.

The professor, who is also interested in ocean physics, is truly tireless in his campaign to raise awareness about this topic. Whether on Twitter, Instagram or Facebook, in his “Klimalounge” blog, or as a speaker and regular contributor to the German news magazine Der Spiegel, he shares information supported by scientific facts and reports and is not above

confronting those who deny reality with pseudo-arguments. The subject of his undergraduate thesis was the theory of relativity. He always wanted to be a naturalist but it turned out not to be astrophysics after all: “I wanted to work on something that is not only academically interesting but that is useful to mankind.”

His voice and those of many other scientists are being heard, slowly but surely. “Very many young people have understood how dire our situation is,” Rahmstorf says. And the impression he gained at the last World Economic Forum in Davos was that “attitudes have also changed in the financial world.” After all, every individual can do something. Rahmstorf doesn’t own a car and doesn’t use fossil fuels like gas heating at home. Instead, he has solar panels on his roof and consumes just half of the power they generate for his own household. “The most important thing is to get involved in climate-related policymaking processes. And of course to choose green investments that apply the strictest criteria, letting your money work for a sustainable future.” Ultimately though, says Rahmstorf, the fight against climate change has to be a concerted effort between consumers, politicians and the business community.

Achieving this end requires the general public to be educated – that is his staunchly held belief. Rahmstorf will therefore continue to conduct lectures, give interviews, tweet and write blog posts. “Giving up is not an option that I could justify to the world or my children.”

Photo: Nick Cubbin

We're ideally positioned for sustainability as a bank

Christian Sewing talks about climate targets as part of Deutsche Bank's sustainability strategy.

The coronavirus pandemic has diverted public attention away from the fight against climate change. Has the topic become less important?

No, on the contrary. The coronavirus is making us aware of certain things for the first time. We're all suddenly realising what it feels like when the air is cleaner and how valuable it is when nature is more intact. Moreover, the fear of major disasters has increased as a result of the coronavirus pandemic. This will also be reflected in policy-making. So climate change is an issue that will grow rather than diminish in importance.

What does this mean for banks?

Specifically, this means that simply observing from the sidelines isn't an option; we have to promote the topic ourselves. On the one hand, because political thinking with regard to sustainability is increasingly reflected in how we are regulated as banks. But on the other hand, mainly because we understand that we as a bank have a responsibility and the opportunity to take action. We play a crucial role: we can and must help power companies, airlines and carmakers to do business more sustainably.

How?

We're the gateway to the capital market. We have the necessary investment capital. In the first half of 2020, we have placed environmental ›

DEUTSCHE BANK'S CLIMATE GOALS

- Sustainable Finance target of 200 bn euros by 2025
- End of global business activities in coal mining by 2025
- End of financing new oil and gas projects in the Arctic region or new oil sand projects - effective immediately
- Introduction of methods for measuring climate impact by the end of 2022
- Solely use renewable electricity by 2025

Christian Sewing: "We play a crucial role: we can and must help companies to do business more sustainably."



and social bonds for our clients with a volume of roughly 4.2 billion euros.

For the first time, Deutsche Bank has issued specific targets. Is this primarily a signal to the outside world, or is it directed inhouse?

To me, the signal to our staff is much more important. This target is the product of an interplay between the businesses. All their representatives on the Sustainability Council were asked to submit growth plans and to demonstrate the contributions they can make. We then validated the plans with market data and our market share. We have a good base, as we've been trending upwards in sustainable finance and investments for two years already. We're therefore very confident that we can achieve this ambitious

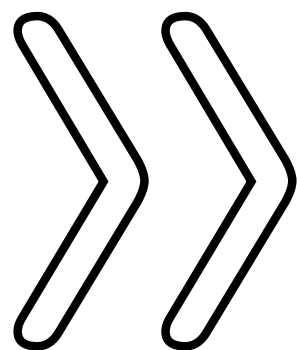
target. And so now we have a yardstick against which we can measure ourselves, and the transparency to see how we're doing in the individual businesses quarter by quarter.

Then why is the bank only reporting once a year instead of every quarter?

I want to see for myself first exactly how quickly we obtain the figures at the end of the quarter, what the data quality is and where we need to improve the process. The goal must be to have an automatic process in place: from the granting of sustainable loans and issuing of sustainable bonds right through to sales and marketing, including financial reporting.

How does your target compare to those of your peers?

We're very good by comparison. It's not just about how high the target is, but also about the timescale in which we aim to achieve it. We have no reason to be shy about either the absolute figure or the timescale. ›



The challenge is
to help companies
cut their CO₂ emis-
sions as quickly as
possible«

› One single figure doesn't make a strategy. How are you incorporating sustainability into your business strategy?

When we talk about sustainability, we think in four categories. First, for us as a bank it's about sustainable finance, that is, the sustainable financing solutions and financial investments we provide to our clients. Second, we also have to say what we intend to do – our inhouse guidelines and policies. Then we

have specific targets for our own business operations. And fourth, thought leadership – that is, we look at how we can shape discourse with our actions. We've made progress on every count. The target of 200 billion euros only applies to the sustainable finance – just like issuing our own first green bond.

How was the issuance this May?

It was a big success – it was multiple times oversubscribed. This was another key element of our sustainability strategy with which we aim to cover the entire value chain – from loan approval to structuring and design and then on from marketing right through to refinancing.

What about Deutsche Bank's inhouse policies? Deutsche Bank is facing criticism for still doing business with energy firms from the coal, oil and gas sectors.

What annoys me about this criticism is that it's only ever black or white, along the lines of: it's an oil company, so doing business with it shouldn't be allowed. That's a bit like saying no one's allowed to fill their car up any more because it's bad for the environment. What we need is a transformation that not only makes sense but is also realistic. We want to help companies cut their CO₂ emissions as quickly as possible. That's the real challenge, and we sense this whenever we speak to our clients who come to us for advice.

But there must be some lines of business that the bank should already have stopped pursuing?

Yes, there are. And that's why we have bank-wide policies – also

covering our business with energy firms. There we commit ourselves to not finance new projects in the Arctic region or oil sand projects. In addition, we pledged ourselves to end our global business activities in coal mining by 2025. Since 2016, we reduced our involvement in financing of coal mining companies, comfortably exceeding our 2016 goal of 20 percent.

For you as CEO, what's the aim of this sustainability drive? Is it more about showing that the bank is aware of its responsibility in this context, or do you see it as a business model that brings revenues and profit?

It's both. Of course, we consider it our duty that Deutsche Bank is a responsible corporate citizen. But we also see it as a tremendous opportunity for the bank to grow. And we have the best possible foundation in place: our business divisions – primarily our Investment Bank and our Corporate Bank – can generate the kind of assets that our institutional and private clients want to invest in. As a global financier with a loan book of more than 440 billion euros, we have an advantage over all other European banks.

So there's no danger of this sustainability drive costing shareholders because turnover and profit could drop?

I don't think so. If we say "no", it does of course cost revenues initially. But that's no different to what we do every day when we're assessing our risks in other areas of the bank. We don't want to enter into any kind of business that means a high risk for our clients, the environment or society – and that's why we have guidelines and policies which we continue to refine. I do think, though, that there's a more important factor: the transition to a low-carbon economy offers great opportunities to those who embark on it. After all, climate-friendly business is increasingly important to clients and investors – and it's something our colleagues are noticing in their meetings with clients and investors every day. I expect that in just a few years sustainability ratings will be just as important as traditional credit ratings from agencies like Fitch, Moody's and S&P. ›

› Clients and investors will closely monitor whether Deutsche Bank's own operations are climate-friendly. How much progress has the bank made on this count?

We've come a very long way, although I have to admit that it's easier for us than for many traditional industrial companies when it comes to our carbon footprint. Our operations have, in fact, been climate-neutral since 2012; we've reduced our CO₂ emissions by 60 per cent since 2011 and almost 80 per cent of our electricity comes from renewables. We use certificates to offset the rest. But we can do more, which is why we've set specific targets for our own business operations. One of these is that by 2025 we intend to power our operations exclusively using electricity from renewable energy sources. We're working on making changes to our company car fleet that will benefit the environment, and we aim to reduce our business travel by air. And when we look at our branches and offices, there's still plenty we can do to help the environment: for example, how much paper we use. This is where we're counting on our employees worldwide, on their ideas and on their involvement.

Will the Management Board be setting the rules here?

The Management Board doesn't want to have to continually issue decrees on what climate-friendly operations look like. We prefer to rely on everyone joining in. One example here is that we got rid of disposable coffee cups and plastic containers at all our locations in Germany last year. That was a fantastic initiative!

Over the past decade, the financial industry's reputation has been severely dented. In the fight against climate change, why on earth should policymakers and society trust banks?

It can't be achieved without banks. Our balance sheets give us a unique lever, which we can deploy to support the transition towards a more climate-friendly and more social world. We want to fulfil this responsibility. But we won't manage it on our own – not as Deutsche Bank and not as an industry. We need standards so that competition

is governed by uniform and reliable conditions. And we'll only manage it if lawmakers, regulators and also private companies all work together closely. Here, too, we as a bank want to be part of the solution. That's why we maintain an ongoing dialogue with politicians, business representatives, trade associations and non-governmental organisations. ‹

Our sustainability and climate risk governance

We have been strengthening our governance for managing and overseeing sustainability matters, including those particularly related to climate change.

The Group-wide Sustainability Council, established in 2018, acts as the main advisory body to the Management Board on current and emerging sustainability topics. Chaired by Christian Sewing, our Chief Executive Officer, the council is composed of senior representatives from relevant business and infrastructure functions.

Mandated by our Group Risk Committee, the Enterprise Risk Committee assumes the overall responsibility for holistic climate risk management. This includes overseeing the development of a climate risk framework, as well as the approval of sectoral risk appetite limits and restrictions to manage climate risks to the bank.

Potential reputational risks from client transactions, including those linked to climate-related issues, are governed by our Group-wide reputational risk framework. The Group Reputational Risk Committee is responsible for ensuring oversight, governance and management of these risks. Chaired by our Chief Risk Officer, the committee receives quarterly updates on environmental and social issues, including on climate change. It is a sub-committee of the Group Risk Committee.

Climate-related risks to the bank's infrastructure, employees, and key processes are monitored by our Non-Financial Risk Committee, another sub-committee of the bank's Group Risk Committee.

Group Sustainability, our central sustainability function, is responsible for developing and coordinating the bank's strategic approach to sustainability. Sustainability-related governance structures, policies and processes, as well as dedicated sustainability teams in our business divisions, help us to anticipate client demands and continually expand our ESG offerings.

Our Management Board and our Supervisory Board are regularly updated on sustainability, with a particular focus on sustainable finance. ‹



Sustainable Finance

Deutsche Bank: part of the green revolution

Henrik Johnsson, Global Co-Head of Capital Markets, discusses why the short-term expense of transitioning to a green economy will be worth it in the long run.

The Covid-19 pandemic still has countries around the world in its grip. In its aftermath, the global economy will come out of lockdown into a financial crisis. As the focus turns to rebuilding, what place will sustainable finance hold in the economy?

"People talk about the green revolution, and I definitely think it's coming," says Henrik Johnsson, Global Co-Head of Capital Markets. "Has it only been paused by Covid-19, or will the pandemic accelerate it? I'm not sure – but I am sure that it will not reverse its trajectory."

Johnsson, who has worked in sustainable finance for the past five years, believes this revolution may be costly, but that the costs of transitioning to a green economy are balanced by its long-term goals: increased prosperity, longer life spans by reducing pollution, better impacts on the environment and social progress.

"In 2019, we saw companies and issuers of capital waking up to the fact that their social and environmental activity isn't about PR, it's about their entire business models long-term," he explains. "If the demand for environmentally responsible investment continues to grow at this pace, a company in, let's say, the energy sector won't be able to raise capital if it doesn't make significant ESG changes to its business

model." He cites coal as a clear example: big energy companies are divesting their coal assets and many investors won't invest in it. Looking ahead, the same could happen to oil, power generation, combustion engines etc.

"A lot of our clients are transitioning to a low-carbon-footprint model, and they have to do it quickly, or they could disappear."

The advent of Covid-19 disrupted this transition for many clients, but Johnsson believes it will return to the forefront post pandemic, particularly as the new generation of investors refocus on green investing.

"If you're 25 and you're starting to save for a pension online, you'll have ten alternatives for bond funds to put your money into – and young people consistently choose the environmentally friendly options," Johnsson says.

"This is what I find most exciting: it's no longer about companies getting a good headline for their ESG efforts, it's about changing a company's behaviour

Henrik Johnsson: "In future, when an investor buys debt, he'll consider the company's credit and ESG ratings equally"



because people really care about this issue. Not making a concerted effort to cater to the green needs of this new generation means companies risk becoming obsolete."

DOES CLIMATE PROTECTION EQUAL GREEN BONDS?

Ten years ago, Deutsche Bank helped the World Bank issue the first green bond. "We were a pioneer in sustainable finance, creating what was then a very specialised, niche offering that saw a maximum three or four issues per year, with relatively small volumes," Johnsson says.

The Swede, who joined Deutsche Bank as an intern in 2001, looks back to 2017 when Debt Capital Markets (DCM) started focusing on sustainable finance as investors discovered it was easy to raise funds that invest in green assets. "Suddenly, we started seeing much more demand for green and ESG products," says Johnsson, explaining that the total amount raised

by green bonds jumped from 1 billion US dollars in 2012 to 35 billion in 2014; and over 80 billion dollars raised by 2016. In 2019, global green bond issuance topped more than 190 billion dollars. Deutsche Bank not only holds a leading position as an advisor to others in this business, it just successfully placed its own first green bond in the market. Underlining its sustainability strategy, the bank recently set ambitious targets to increase its volume of ESG financing, plus its portfolio of sustainable investments under management, to over 200 billion euros in total by the end of 2025.

This demand for green financial products has now expanded into new financial instruments called ESG (Environmental, Social and Governance) bonds, SDG (Social Development Goal) bonds and Factor bonds, which are more comprehensively aligned with the UN's Sustainable Development Goals.

"A company issuing a traditional green bond would need to find a specific portfolio of green assets on the balance sheet and issue debt on those assets," Johnsson explains. "The proceeds from that debt could only be used for specific projects that must be validated by a third-party provider."

ESG/SDG and Factor bonds, on the other hand, are not limited to specific projects but instead ›

› linked to specific climate change key performance indicators (KPIs). A company can raise as much as it wants and use it for whatever it wants, as long as investors are willing to buy. But if the company misses its KPIs, it pays a financial penalty via the coupon on its debt increasing.

Deutsche Bank issued one such bond last year for Enel, an Italian power generating company that also drills for oil. The 2.5 billion US dollar bond is the first SDG from a corporate of significant scale. There is a substantial financial penalty if Enel fails to achieve the goals attached to the bond, which include creating renewable capacity of more than 55 per cent in four- and seven-year increments.

This doesn't mean that green bonds will become obsolete. They are good for investors in that they are measurable, trackable and have an understandable, upfront set of criteria. However, there aren't nearly enough green bonds available to satisfy investor demand, which is why there has been such a big increase in volumes of ESG and Factor bonds.

With more flexible instruments like these, banks and issuers can create things like Covid bonds that fund hospitals or provide essential goods to families in need. Fourteen billion US dollars of Covid bonds has been issued so far, including one co-managed by Deutsche Bank for USA Capital Corporation, with proceeds going towards affordable housing, renewable energy and Covid-19 relief.

"My team and I are proud to work on ESG deals," Johnsson says. "It's also about being part of something good."

IT'S NOT EASY BEING GREEN ...

The biggest challenge in sustainable finance now is finding common KPIs that entire industries accept. "Look at the oil industry – all of the oil majors are now transitioning their business models, but using different KPIs as the criteria," Johnsson says. "This makes it difficult for investors to compare the different efforts. It's not cohesive."

That is why Deutsche Bank is working to standardise products to make it easier to analyse and compare companies – balancing this need for cohesion with the impact on the businesses. Johnsson is hopeful that ESG standardisation will become as commonplace – and as important – as credit ratings are now.

"Sustainability is five or ten years behind credit ratings," he says, explaining how credit agencies came together years ago to build a framework for analysing different companies. Now, businesses need to present information in this way in order to receive a credit rating. Standardisation is the way forward for ESG, Johnsson says: "In future, when an investor buys debt, he'll consider the company's credit and ESG ratings equally. It's a work in progress, but this is where we're headed." <

»If we don't act now, we'll have passed up an opportunity«

Gerald Podobnik is Chief Financial Officer of our Corporate Bank and a member of the German government's Sustainable Finance Advisory Council.

Mr Podobnik, up until just a few years ago, the whole "sustainable finance" concept was seen as more of a marketing ploy. Has that changed?

That definitely came into it in the beginning. The first issuers wanted to send a message: look at us, we're committed to operating sustainably. But the Paris Climate Agreement, the supplementary One Planet Summit in 2017 and ultimately the European Commission's Sustainable Finance Strategy gave the idea a tremendous boost. From that moment on, everyone noticed that it had been given a regulatory framework. And that in turn sped up its development.

That means the marketing phase is behind us?

Yes, because investors are gradually changing their behaviour as well. Firms are coming under increasing pressure to embed sustainability criteria in their governance practices. More and more institutional investors use sustainability criteria to manage their portfolios and are enquiring after sustainability >



Gerald Podobnik: "Companies have to deliver vastly improved and more transparent reporting on how they plan to become more sustainable"

› ratings. Retail investors are now also warming to the topic. There are studies showing that firms with a stronger focus on ESG (Environmental, Social and Governance) criteria are also more resilient in times of crisis. That's a strong message.

Deutsche Bank aims to facilitate 200 billion euros of sustainable financing and investments by 2025. Why weren't we faster setting such targets?

We had been criticised for not having any specific targets. However, we wanted to adopt an orderly, structured and clear approach. We also wanted to use the European Union's sustainability standard, the EU Taxonomy, as the basis for developing understandable criteria. It simply has to be clear which activities help towards reaching our targets and which ones do not. For topics such as renewable energies, sustainable production or sustainable farming, the criteria are based on internationally recognised standards and so are quite easy to define.

For other areas, the EU stipulations are quite complex, but they provide a very good framework for how the assessment should be conducted. There are other areas, especially in the social sphere, where we had to stipulate the criteria ourselves. In the next step, we had to then assess what we already have in our portfolio that complies with our inhouse taxonomy. Doing so demonstrated how much we had already achieved. The consultancy ISS ESG has scrutinised our ESG criteria and ranked us eighth of 281 firms in the category financial institutions/banks and capital market.

Yet you're calling on politicians to create more incentives for the financial sector to smooth the way for sustainable finance. Why is that necessary?

The only way to help the financial sector make a huge shift towards sustainable finance in a short space of time is by offering incentives and through regulatory requirements. The question is also how to get all banks pulling in this direction. As a big bank, we are already being watched by the capital market, analysts and investors. Smaller or regional banks, however, are not – they would need some easing of capital requirements, for example. A climate stress test for banks would also be a good idea: those with a good

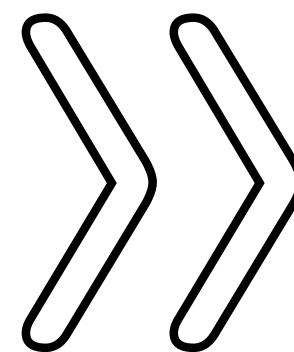
climate rating could be exempted from fulfilling certain requirements.

What else needs to be done for companies to operate more sustainably?

Companies have to deliver vastly improved and more transparent reporting on how they plan to become more sustainable – and of course on what they have already achieved as well. After all, it's standards and scalability that make capital markets work. What I mean is: there must be quantifiable and comparable metrics to identify how sustainably businesses operate. If we as banks have to be evaluated, then we must also be able to classify the business of our clients accordingly. And this requires standards similar to those for financial reporting.

You're a member of the German government's Sustainable Finance Advisory Council. Is progress being made on this count?

The EU is currently revising its directive on non-financial reporting for companies. We're on the right track with that. And on the government's Sustainable Finance Advisory Council, our objective is to make Germany a leading light in this field. Its members are representatives from the financial sector and the real economy, civil society and academia. We are convinced that the current crisis provides an opportunity to take interventionary action to link growth and sustainability. The energies and resources we mobilise now will have long-lasting effects. So we also have to help to solve long-term challenges – chiefly the transformation to a climate-neutral economy. That's the direction we aim to take. Of course, there's no shortage of people whose first



A climate stress test for banks would be a good idea«

priority is to look after the economy and think the climate should take second place. We see things differently, however: we have to make the transformation into a more sustainable economy, one that is much more resilient to the risks of climate change, for example. If we fail to act during this crisis, then we will have passed up an opportunity.

As a banker who always has to represent the interests of his corporate clients, don't you find yourself wrestling with the conflict between sustainability and economic efficiency?

On the government's advisory council, I don't represent the bank; I was

nominated in my personal capacity. And I'm required to draw a strict distinction between the two roles. But leaving that aside: when we talk to our corporate clients, their interests are always upmost in our minds when we consider applying sustainable criteria. We are currently seeing two trends shaping entrepreneurial developments: digitalisation and sustainability. Those who fail to take a strategic view early enough will suffer long-term consequences. So we always strive to ensure that acute problems are also addressed with a view to long-term success. When the coronavirus crisis began, we all saw that parts of our economy lack resilience. This shows how important a sustainably oriented economy can be. As a bank, we can provide a decisive boost by supporting sustainability from every angle – for example by issuing our own green bonds.

Sustainable finance

The OECD estimates that until 2030, more than 6 trillion euros of investment will be required every year to fight climate change globally. Naturally, as a global financial intermediary, we have a role to play here, by developing investment products and financing solutions and by providing advice to companies on how they can make the transition to more sustainable business models.

Building on our long-standing expertise and involvement in financing sustainable economic activities, in May 2020, we announced the target to generate at least 200 billion euros in sustainable financing and ESG investments by our Private Bank as at the end of 2025. The target of 200 billion euros does not include our asset manager DWS. As a listed company, DWS sets its own targets and already has around 70 billion euros of sustainable assets under management, per year-end 2019. We have also signed the climate commitment of the German financial sector. By doing so, we pledge to gradually align our lending portfolios with the goals of the Paris Agreement.

We have developed an internal Sustainable Finance Framework to establish a bank-wide consistent definition of what constitutes sustainable finance. It links to the EU taxonomy for environmental criteria but also includes social criteria we have set up following international principles, such as the International Capital Market Association (ICMA) Social Bond Principles. Our Framework, including the Second Party Opinion by Institutional Shareholder Services ESG (ISS ESG) is [publicly available](#).

In May 2020, we issued our first own green bond with a volume of 500 million euros. Based on our Green Bond Framework, the proceeds will be used to support the development of renewable energy, energy efficiency projects, and so-called green buildings. The framework follows the ICMA Green Bond Principles and the EU Technical Expert Group's latest guidance on the EU Taxonomy and will continue to evolve following the development of these principles and standards. Our Green Bond Framework and the corresponding Second Party Opinion provided by ISS ESG are disclosed on our [Investor Relations website](#).

Examples for sustainable finance 2019

Corporate Bank and Investment Bank

In 2019, we helped clients across the globe to raise 4.5 billion euros through issuing ESG bonds, including green bonds, social bonds, sustainable bonds and bonds linked to sustainability criteria. Of that, 3.7 billion euros was raised through issuing dedicated green or sustainability-linked bonds, most of which had a strong focus on solutions mitigating or adapting to climate change. For example, in 2019, we provided support to:

- The Italian utility company Enel to introduce a new format known as a sustainability-linked bond. It was the first-ever public bond format to attach contractual consequences to the fulfilling of certain predefined sustainability key performance indicators.
- Assicurazioni Generali in issuing the first green-subordinated benchmark transaction by a financial institution in Europe.
- Vattenfall in issuing their inaugural green bond, and Republic of Indonesia in issuing their second green sukuk bond, a sharia-compliant investment in renewable energy and other environmental assets.

This positive trend is continuing in 2020. In the year to 31 May 2020, Deutsche Bank advised clients on 22 transactions, placing sustainable bonds with an underwriting volume of nearly 3.5 billion euros, ranking Deutsche Bank number 10 in the global ranking for sustainable bonds (May 2020; source: Dealogic). For example, Deutsche Bank acted as joint bookrunner on BASF's inaugural 1 billion euro green bond, and as joint lead manager of two 500 million euro Climate Awareness Bond taps issued by the European Investment Bank.

Further, in 2019, we acted as coordinator for eight sustainability-linked loans including the German companies Continental, LANXESS and Zeppelin, the British company NEPI Rockcastle and the US company Crown, where we led the first leveraged sustainability-linked loan agreement in the US market.

In the area of infrastructure development financing, in 2019, we were mandated lead arranger and sole rates hedge arranger for the largest offshore wind transaction in Asia Pacific at deal closure. The 82 billion new Taiwanese dollars (2.3 billion euro equivalent), 640 megawatt Yunlin offshore wind farm project financing, developed by a consortium led by Wpd AG, provided a viable financing template for large-scale offshore wind projects to facilitate the gradual phase-out of nuclear energy and coal-fired power generation in Taiwan.

We have been active in financing renewable energy projects since the mid-2000s, when projects reached industrial scale. In 2019, we arranged full or partial finance for such renewable energy projects totalling around 2.5 billion euros and generating over 2,200 megawatts.

Key highlights 2019

In € bn	Overall volume 2019	Overall volume 2018	Deutsche Bank contribution
<u>ESG bonds</u> <i>Bond issuances with dedicated use of proceeds for sustainable causes, be it green, social, sustainable or linked to dedicated sustainability KPIs</i>	>22	>8	<i>Supported ESG bond transactions (fund raising)</i>
<u>Sustainability-linked loans</u> <i>Instruments and/or facilities incentivising borrower's achievement of ambitious, predetermined sustainability KPIs</i>	>50	>10	<i>Participated in over 20 (2018: 9) sustainability-linked loans</i>
<u>Financing of renewable energy projects</u>	2.5	1.2	<i>Arranged full or partial project finance</i>
<u>Financing infrastructure projects with strong development credentials and positive contribution to local communities</u>	>3.4	n/a ¹	<i>Arranged or participated in infrastructure finance</i>

¹ Overall volume not reported in 2018; please refer to Non-Financial Report 2018, p. 33 for individual examples.

In line with our broader strategy to grow and expand our ESG products and solutions to all client groups, we are strengthening divisional and regional structures to anchor a holistic approach to sustainability. We have allocated additional ESG resources both in our Investment Bank and Corporate Bank, including a newly created sustainable finance team within Capital Markets. The team will support our clients and our global coverage teams to better understand the impact of ESG on market access and business development. Additionally, we have established an ESG Competence Team in our Corporate Bank, acting as a specialist partner for product development and client coverage, to ensure that Corporate Bank customers have access to ESG advisory and sustainability-related commercial banking products that support them in their sustainability transition. We have also appointed a regional Head of ESG to develop and coordinate our ESG business strategy across all business divisions in the Asia-Pacific region.

Private Bank

In 2019, we began offering an equity fund to our Private Bank clients that invests in companies that contribute to the objectives set out in the United Nations Sustainable Development Goals (SDGs). After the launch of the equity fund, we generated gross inflows of approximately 248 million euros (equivalent to around 22% of gross flows into equity thematic funds). Additionally, we started offering a green bond fund whose target is to invest into bonds to support environment-related projects. For our international private and commercial business, we actively recommended four thematic ESG funds to clients in Belgium. This took the total number of recommended ESG funds to nine.

BHW, Deutsche Bank's building society, is keen to further expand its core business area of real estate modernisation and strongly supports our clients in financing sustainable energy modernisation. To this end, the

construction loan BHW Express Darlehen was made available throughout the first quarter of 2020 at a reduced rate of interest applicable to such sustainable modernisation projects. Based on the success of this product in the market, BHW is currently working on KlimaDarlehen – a form of lending designed particularly for sustainable energy construction projects.

In Wealth Management, we manage assets under ESG mandates of nearly 500 million euros. Currently, we have 19 ESG funds on our global approved list. Client assets in ESG funds grew by 56% in 2019.

Key highlights 2019

In € m	2019	2018
<u>State-subsidised mortgages (loan volume)¹</u> <i>for financing agreements of low-energy houses or for construction and modernisation projects that meet higher energy standards than those required by Germany's Energy Saving Ordinance</i>	490	360
<u>Discretionary ESG mandates in Wealth Management (AuM)</u> <i>(Based on a best-in-class approach, with certain sectoral exclusions and utilising MSCI ESG rating criteria)</i>	500	500

¹ Total volume of state-subsidised mortgages through cooperation with Germany's nationwide development bank Kreditanstalt für Wiederaufbau in 2019: €1.2 bn.

Asset Management (DWS)

In 2019, our asset manager DWS reported 69.7 billion euros of ESG assets under management (AuM), the bulk of which (51.6 billion euros) is managed across active and passive mandates. The remainder includes sustainable investment funds/impact investments (715 million euros); real estate investments in certified green-labelled buildings (16.5 billion euros); infrastructure assets in renewable assets (862 million euros). In 2019, DWS total assets under management (AuM) were 767.4 billion euros.

ACTIVITY IN 2019/2020 INCLUDED

- Introduction of Climate Transition Risk Scorings to identify risks and opportunities associated with the transition to a low carbon economy. Access to the scores is provided globally to DWS portfolio managers and analysts for liquid/listed assets.
- Publication of climate transition risk and water risk on a sector level.
- Introduction of "Smart Integration" into the investment platform, an advanced approach to ESG integration that leverages best-in-

class research data from DWS's proprietary ESG Engine. "Smart Integration" enables DWS to specifically identify and objectively analyse the risks and opportunities associated with a transition to a low-carbon economy for each issuer.

- Launch of the first DWS Invest QI Global Climate Action Fund, designed to meet the growing investor demand for strategies that aim to reduce carbon emissions.
- Extension of the ESG leaders low carbon product suite of exchange traded passive funds with MSCI.
- Conversion of the DWS Invest Climate Tech into an ESG version.
- Continued partnership with a significant corporate client by

extending a clean energy fund to invest in climate solutions in China in the context of the China Clean Energy Fund.

- Promotion of retail distribution campaigns for DWS Invest Green Bond fund and DWS Invest SDG Global Equities fund to scale up capital market investment.
- DWS's first Group Sustainability Officer will start work in August 2020 and will focus on driving DWS sustainability strategy forward and putting ESG at the core of everything we do.

report published by the UK campaign group ShareAction, DWS finished among the leading asset managers globally in voting on shareholder resolutions linked to climate change.

DWS has piloted ESG Key Performance Indicators, for example on CO₂ emissions and information on climate change indicators of a fund, to give investors transparency on the ESG contributions of the DWS Invest SDG Global Equities fund. Furthermore, DWS continues to develop its ESG methodology, especially with regard to carbon and climate risk sensitivity, opportunities from impact investing and the SDGs, by integrating them into the ESG Engine.

To further strengthen its commitment to ESG in real estate investments, DWS aims at halving carbon emissions by 2030 against the reference year 2017 for its entire portfolio of European office properties held by funds managed by the European real estate business. This is estimated to result in an annual reduction of 61,000 metric tons of carbon dioxide emissions – the equivalent of taking approximately 24,000 diesel cars off the road and saving around 23 million litres of diesel.

When engaging with corporates, DWS places greater emphasis on a board's responsibility for ESG. According to a

Key highlights 2019

In € bn	2019	2018
<u>ESG assets under management</u> Classification follows the methodology of the Global Sustainable Investment Alliance	69.7	47.1
Thereof		
<u>ESG within Active investments</u> Portfolios based on client-specific exclusions for institutional clients, retail and institutional assets managed according to uniformly defined investment standards or client-specific derivations, particular sustainability themed ESG products, and third-party initiated mutual funds applying external ESG approach	40.7	28.9
<u>ESG within Passive investments</u> Exchange traded funds or products, passively managed funds for institutional clients	10.9	3.3
<u>ESG within Alternatives</u> Sustainable investment funds/impact investments, Real Estate, infrastructure investments	18.1	14.9

Carbon-intensive sectors

Our commitment to sustainable finance also includes questioning our involvement in certain sectors, including those that are carbon-intensive.

In this context, the general provisions of our [Environmental and Social Risk Framework](#) define procedures and responsibilities for risk identification, assessment, and decision-making. The Framework also covers deal-independent risk screening, the identification of companies with a controversial environmental and social (ES) profile and the definition of sensitive sectors, and specifies the requirements for ES due diligence including criteria for mandatory referral to Group Sustainability, our central sustainability team.

The due diligence process regarding project finance is based on the IFC Performance Standards underlying the due diligence process of the Equator Principles. To confirm our commitment, Deutsche Bank formally joined the Equator Principles in July 2020.

The following restrictions are in place to reduce our climate risk exposure and focus the provision of financial services to companies in transition.

Coal mining

Since 2016, we have had a policy in place prohibiting financing of greenfield thermal coal mining and associated infrastructure, and we committed to reducing our coal lending exposure and set a three-year reduction target of 20% in 2016. As of the end of 2019, we achieved that target, and we are now further committed to phasing out coal exposure by 2025 worldwide (including both lending and capital markets).

Coal power

Since 2016, we have had a policy in place prohibiting the financing of the development of new coal-fired power plants and the expansion of existing coal-fired power plants, irrespective of their location. In addition to this commitment, we will review our coal power exposure, and for all clients depending more than 50% on coal – be it energy capacity or energy output – we will subject the provision of financial services to the availability of credible diversification plans. Accordingly, we will review all clients in Europe and the US by the end of 2020 and gradually phase out existing exposure if there are no diversification plans in place. Starting in 2022, we will extend this review and phase-out to Asia and selected developing markets. With this staged timing, we acknowledge the additional time required by some regions to prepare for the transformation.

Oil and gas

In addition to our current enhanced environmental and social due diligence process, we will review by end of 2020 our existing exposure to the oil and gas sector globally, considering environmental and social performance, carbon intensity, and transition plans. Based on this review, we will subsequently aim to reduce our exposure.

Additionally, we will not finance:

- Oil or gas projects via hydraulic fracturing in countries with extremely high water stress
- New oil or gas projects in the Arctic region; Arctic region being defined based on a 10°C July isotherm boundary, meaning the area does not experience temperatures above 10°C
- New projects involving exploration, production or transport/processing of oil sands

Financing means the lending and capital market, where the majority of the use of proceeds is explicitly linked to the listed projects.

Fossil fuel policy

The outlined changes to our fossil fuel policies announced in July 2020 underline our aspiration to contribute to climate protection and to the goal of the European Union to become net-zero-carbon by 2050. These changes are in addition to our recently announced commitment to align the carbon intensity of our lending portfolios with the targets of the Paris Agreement, which we have pledged by joining the German financial sector's collective commitment to climate action in June 2020. ‹



Climate Risks

Paulina Olowska
Car Mobile Collage, 2009
Courtesy of the artist and
Metro Pictures, New York

»We need to make the climate risk assessment clear and explicit«

Chris Jaques, Head of Enterprise Risk Portfolio Management and Stress Testing, on the challenge of creating a framework for climate risk from scratch.

"Climate risk is a new and complex topic that is continuously evolving," says Chris Jaques, Head of Enterprise Risk Portfolio Management and Stress Testing. "But you don't often get the opportunity to create a framework from the ground up for a new type of risk. It's an exciting challenge."

Jaques, who joined Deutsche Bank seven years ago and has been focusing on climate risk for the past 18 months, is the Deputy Chair of the Group Enterprise Risk Committee, a team of senior leaders from across Risk disciplines. The Committee focuses on risk events and emerging trends that impact Deutsche Bank across multiple risk types. The Committee is empowered to approve the bank's appetite for taking certain types of risks and also reviews stress testing scenarios and results across the Group.

In 2018, the Committee reviewed the potential Risk implications of climate change and mandated the Risk function to develop scenario analyses of certain carbon-intensive sectors, such as oil and gas, to assess portfolio vulnerability to climate transition risks. In 2019, following a sharp increase in scrutiny from governments, regulators and investors on climate risk and wider sustaina-

bility issues, it established a dedicated working group to start building a climate risk management framework for Deutsche Bank.

"Our working group is staffed by volunteers from all across Risk – colleagues who had a real personal interest in the topic, who wanted to help drive change in the bank and the industry," says Jaques. "The group is formulating what the bank needs to do in terms of developing its governance, risk assessment and modelling capabilities, enabling us to manage climate risk on our own balance sheet."

Among its core tasks, the ten-strong team analyses the transition risks that certain industries and sectors will face as a result of formal policies and behavioural changes in the global economy. For example, as more focus is placed on trying to slow the increase of global temperatures, in line with the Paris Accord, certain industries need to devise credible

Chris Jaques: "You don't often get the opportunity to create a framework from the ground up for a new type of risk. It's an exciting challenge"



strategies to make the transition to lower carbon-intensive models.

"The lack of data and agreed approaches to modelling presents challenges for this kind of analysis and, like our peers, we are still in a build phase," says Jaques. "Nonetheless, we are moving quickly in developing our ability to estimate potential transition costs across carbon-intensive sectors."

"We're looking to gain greater insight into our own portfolio's exposure to climate risk in its different facets, and to build an internal risk appetite for climate risk," Jaques says, explaining that the quantitative metrics will help reduce the carbon intensity of our portfolio over time. "This has to be in lockstep with the business and their ambitions to build our client franchise through the fast expanding array of ESG products."

Jaques says that, as new and evolving as climate risk is, it needs to

be deeply embedded into our existing risk disciplines and an integral part of our 'business-as-usual' risk assessment processes. "For example, if a highly carbon-intensive, large emitter client needs to transition to a greener business model, they may need to invest significantly in their infrastructure. This is a sensible strategy for the client but may lead to an overall increase in the client's leverage, which might in turn impact our internal view of their credit rating," he explains. "So the different risk disciplines need to work collaboratively to understand the best model and methodology to use. Today, one could argue that climate risk is implicit in certain risk analysis, but moving forward, we need to make the climate risk assessment clear and explicit."

Climate Risks

The further development of our climate risk management framework is a key pillar of our approach to sustainability and climate change.

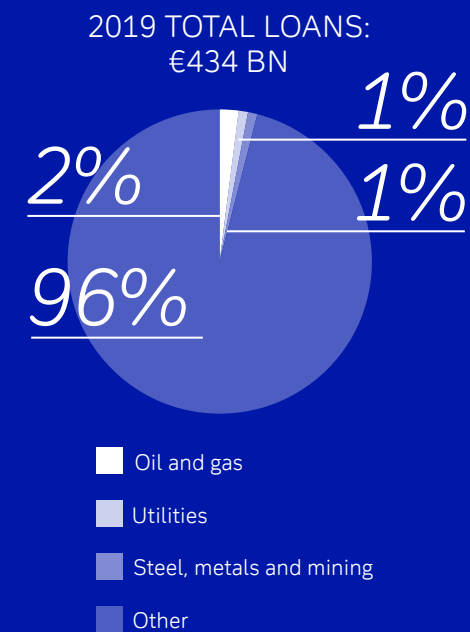
Climate risks are distinct from the majority of risks that Deutsche Bank faces in the sense that (i) certain risks may only materialise over the long-term, (ii) there is limited historical data – particularly in relation to transition risk – to base a forward-looking risk appetite upon and (iii) traditional/existing metrics will not be appropriate/sufficient to manage climate risk.

We are focused on developing the ability to identify, measure, monitor and control these risks in alignment with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations, peer best practice and relevant regulatory guidance. <

Deutsche Bank's exposure

Deutsche Bank's exposure to these industries is low as a proportion of its total loan book volume. The relative shares of each industry have fallen compared to year-end 2016 as the bank reduced its risk appetite thresholds. As of year-end 2019:

- *Loan exposure to the oil and gas industry: €8.4 billion or the equivalent of 2% of overall loan volume, plus revocable and irrevocable lending commitments of €6.9 billion.*
- *Loan exposure to the utilities (electric power and gas) sector: €4.2 billion or 1% of overall loan volume, plus revocable and irrevocable lending commitments of €7.9 billion.*
- *Loan exposure to the steel, metals and mining sector: €4.0 billion or 1% of overall loan volume, plus revocable and irrevocable lending commitments of €4.4 billion. Exposure to coal mining groups is negligible since the bank has tightly managed and reduced its exposures in recent years. These loan exposures have fallen by 31% since year-end 2016.*



Risk identification and measurement

We have developed an internal, sectoral-based climate risk taxonomy which classifies all of our institutional credit exposures. The classification is based on (i) the EU taxonomy for environmental criteria, (ii) scope 1 and 2 carbon emissions data at the client level (where available) or sectoral level and (iii) internal expert judgement.

This initial work has enabled us to estimate our institutional credit portfolio carbon intensity and benchmark this to relevant global comparators, as well as to identify at a high level which clients and sectors are key contributors to our financed carbon emissions. <

Transition scenario analysis and stress tests

A key component in climate risk management is the development of transition scenario analysis, enabling us to assess the potential impacts of policy and behavioral changes on our clients.

In 2019, Deutsche Bank piloted transition scenario analysis for the bank's key carbon-intensive industries: Oil and Gas, Utilities (electric power and natural gas) as well as Steel, Metals and Mining.

- We used the International Energy Agency "Sustainable Development" scenario as a basis for the analysis. The scenario is consistent with the Paris Agreement's objective of holding the increase in global average temperatures to well below 2°C above pre-industrial levels and contains energy demand projections across key sources in line with that objective.
- We applied downward probability of default (PD) rating migrations to our portfolios.
- We assumed an increase in loss given default ratios across all clients.

The results were translated into estimates of how expected loss would develop over the medium to long term for the selected portfolios. While the bank does see meaningful downward rating migrations for our carbon-intensive portfolios under the "Sustainable Development" scenario (before any mitigating actions), the overall impact on the bank's balance sheet quality would remain contained, supported by the bank's focus on well-rated and diversified clients.

We are developing a more comprehensive approach to scenario analysis, applicable to all sectors, modelling the impacts of demand developments, transition capex and carbon pricing. We are participating in the second phase of the United Nations Environment Program Finance Initiative's (UNEP FI) pilot project to support this initiative and are also voluntary participants in the European Banking Authority's pilot climate sensitivity exercise. <

Risk appetite

Our principal tool for managing sectoral exposures is our industry risk management framework. A key input into industry risk assessment, risk appetite setting and frequency of review is our short- and long-term internal industry risk ratings, which incorporate an assessment of an industry's vulnerability to climate risks. Industry risk ratings are also included as an input into our internal rating model for the PD of counterparties.

From a physical risk perspective, an in-house analytical team measures and monitors country- and selected city-specific risks, including natural hazard risks to our assets and operations. These risk assessments inform strategic location planning and scenario design for testing and exercising crisis management in order to ensure robust business continuity, corporate security plans and crisis management plans.

Physical risks to our clients and assets are considered in the assessment of, and risk decision-making in regard to, credit and market risk exposures that may be heavily impacted by acute events.

In 2020, we will establish formal Principles for Managing Climate Risk for Deutsche Bank. These will include a set of guiding principles and qualitative risk appetite statements in relation to climate risk which must be adhered to across the bank. This document will be supported in future by the development of climate risk-specific quantitative risk appetite targets applicable to each of the principles/qualitative statements. <

Asset Management – DWS

Climate change is a significant risk for investors, from the financial losses incurred from extreme weather events to asset re-pricing in the transition to a low-carbon economy. As a signatory of the Principles for Responsible Investment, DWS is committed to implementing the recommendations of the Task Force on Climate-related Financial Disclosure.

To identify leaders and laggards in the field of climate change, DWS has included a Climate Transition Risk Rating in its ESG Engine which is based on carbon intensity. This allows the identification of climate laggards and frontrunners within traditional asset classes and serves as a starting point to obtain insights for product groups with alleviated risks stemming from climate transition.

DWS uses the latest generation of climate risk scores from leading ESG data vendors like MSCI, ISS-oekom and Sustainalytics and derives a cross-vendor climate assessment. While all of the data vendors seek to identify leaders in this field, they apply different methods. The Climate Transition Risk Rating harmonises the scores by determining an implicit relevance and derives a consensus climate risk rating, which is relevant for DWS portfolio management and bespoke client solutions. The model places emphasis on absolute as well as relative leaders plus laggards. This way, the DWS Climate Transition Risk Rating scores become more pronounced on carbon risk and opportunities.

Access to the scores is provided globally to DWS portfolio managers and analysts in Equities, Fixed Income and Multi-Asset. This includes visibility on higher-rated companies that offer climate solutions and manage the transition of their product portfolio into a carbon-free world.

In addition to the integration in the investment management process, sustainability risk and climate risk indicators as well as physical and/or climate transition scenarios are being integrated into DWS's investment risk management process. This is expected to imply, among other things, the integration of risk thresholds with respect to various ESG ratings.

Besides rating-based indicators, scenario analyses and stress tests will be used to assess the exposure and the sensitivity of a portfolio towards climate risks. Physical climate stress scenarios as well as climate transition stress scenarios are planned to be integrated in the market risk stress testing program. Equivalently, for illiquid alternative asset classes, sustainability risks will be integrated in the individual risk assessments performed on an investment level.

In September 2019, DWS joined the Coalition for Climate Resilient Investment (CCRI). The goal of the CCRI is to transform infrastructure investments by integrating climate risks into the decision-making process, driving a paradigm shift toward a more climate resilient global economy. The CCRI initiative, the first private-sector-led

coalition, comprises companies from across the investment value chain with a total of 5 trillion US dollars of assets. It includes governments and multilateral organisations. <

Our Carbon Footprint



Wolfgang Tillmans
Fluten, 1997
Courtesy of Galerie Buchholz,
Berlin/Cologne

A win-win-win situation

A smaller carbon footprint, more modern workplaces, lower costs – Jörg Salzer demonstrates that a green approach makes sense on many counts.

When the project was launched, it was largely the object of ridicule. A lift that generated energy on its way down, concrete that stores heat and a toilet whose water consumption is capped at three litres per flush – what's the point? The answer: saving energy and fighting climate change. "It was an ecological and architectural first at the time," enthused Jörg Salzer when talking about the renovation of Deutsche Bank's head office twin towers in Frankfurt, which was completed in 2010 and remains a landmark achievement. As Group Head Corporate Services, Salzer is responsible for the bank's buildings: "Standards were set at that time and they remain our benchmark – for the systems and equipment installed in the building, the construction materials, the climate control and generally the way we use the office space."

In Frankfurt, the the twin office towers are commonly referred to as "debit and credit" in allusion to our business as a bank. That name is no longer appropriate following the renovation, because since then the company's head office has been self-sufficient. The twin office towers demonstrated to many architects for the first time that conventional concrete can also be ecological and store heat – and that smart reuse systems can drastically reduce water consumption. The energy consumption of heating and air conditioning systems dropped by 67 per cent, while water consumption fell by no less than 74 per cent.

The ridicule is now a thing of the past. The erstwhile showcase project has since become the model for many other Deutsche Bank buildings which are seeing their own carbon footprint shrink

from year to year. In 2007, Deutsche Bank set itself the objective of making its business operations carbon neutral, which it has achieved since 2012. CO₂ emissions – in office buildings or from business travel – have been reduced from 750,000 tonnes to around 360,000 tonnes since 2007. The bank now powers up to 80 per cent of its buildings using electricity from renewable sources. These are all milestones. The bank has now set further targets. By 2050, it is aiming for "net zero CO₂ emissions". And renewable energies are to be the only source of power from 2025.

But the best thing, as far as Jörg Salzer is concerned, is when no energy needs to be consumed. "We have to become much more efficient and reduce consumption," he says. Progressing towards this objective will require fundamental changes in the buildings portfolio, among other things. Wherever the bank is modernising, it attempts to implement flexible space utilisation models. By choosing open-plan office concepts, the office space occupied is reduced and lower energy consumption is the result. And the head office towers are a shining example. Where individual offices or rooms for two people used to be the norm, open spaces were created that cover

Jörg Salzer: "We have to become much more efficient and reduce consumption"



entire floors in some cases. Salzer: "At our Frankfurt head office we managed to create some 270-degree views where dark corridors used to be." At the same time, desks are being equipped with advanced, energy-saving technology. Investment in modern workspaces reduces the bank's space usage and energy consumption. Salzer calls it a "win-win-win situation."

What this looks like in practical terms can be seen around the globe at Deutsche Bank – in Australia, Singapore, China and Holland, projects to cut energy consumption are underway. At its new London address, "21 Moorfields", Deutsche Bank will reduce its CO₂ emissions by some 3,800 tonnes and its electricity consumption by more than 15 gigawatt hours every year. Salzer: "Compared to today, our energy consumption there will decline by more than 60 per cent." And this will apply over the long term – the rental agreement runs for many years.

But Jörg Salzer is still not satisfied with all that. "We are only starting to tap our potential; each individual, us as a bank and society as a whole. We can still do a lot more." Use less plastic, travel by train more, expand the charging infrastructure for electromobility – Salzer has a long list. Even though the experience with the coronavirus crisis shows that a lot is conceivable in an emergency situation, he also recognises that the realm of possibility does have bounds. "We cannot stop all travel of course. That would mean we would never see our clients in person." But much less travel is possible: in 2019 the bank reduced its air travel by a further nine per cent. From 2017 to 2019, the CO₂ emissions caused by employee air travel fell by 22 per cent. We have to carry on in this vein. "This course of action," says Jörg Salzer, "is non-negotiable."

Our own carbon footprint

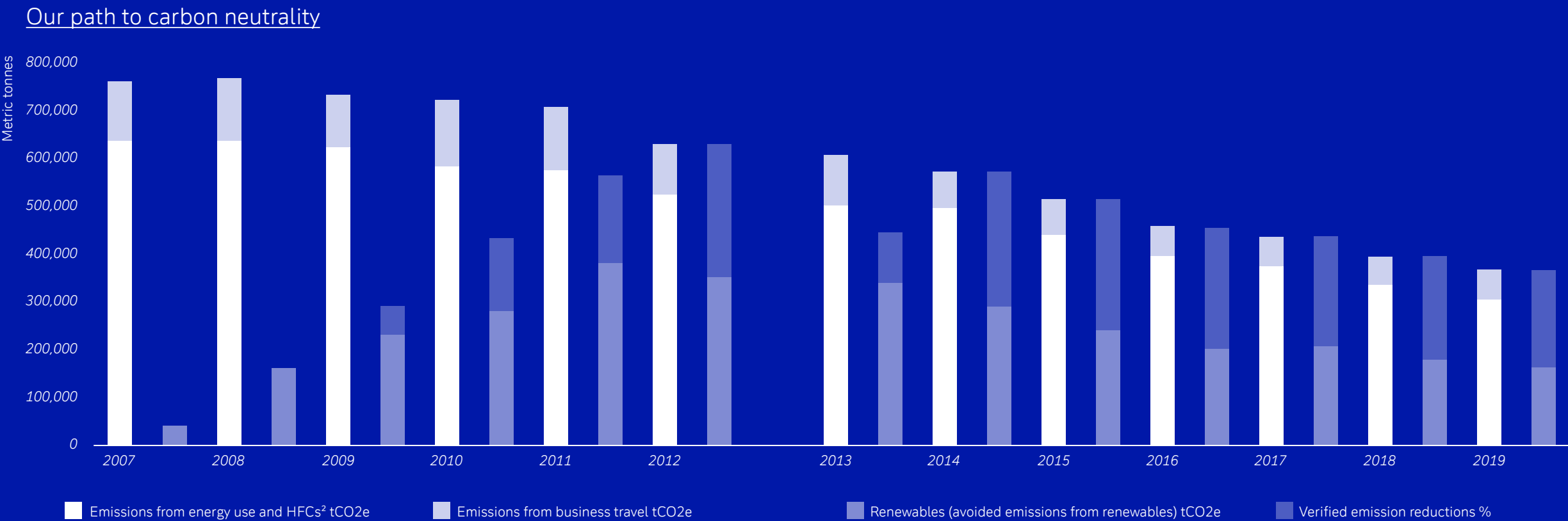
We see it as an integral part of our responsibility as a corporate citizen to minimise the environmental impact of our business operations. We have been paying particular attention to reducing our carbon footprint, using energy and other resources as efficiently as possible, buying renewable electricity and offsetting the remaining emissions. We are also striving to use water and paper responsibly, to minimise the supply chain impact of our business operations and to reduce the amount of waste we generate.

Since 2010, our

- Carbon emissions from travel have been reduced by 60%.
- Carbon emissions from electricity consumption have been reduced by over 85%.
- Total energy consumption has been reduced by 27%.
- Total electricity consumption has been reduced by 35%.

We have reduced our energy consumption by implementing energy-efficiency measures. About 80% of our electricity worldwide was from renewable sources in 2019 and we are committed to expanding renewable electricity use to 100% by 2025.

Deutsche Bank was one of the first banks which committed to becoming carbon-neutral. In 2012, we achieved carbon-neutrality for our own operations and have maintained it since. The bank offsets unavoidable carbon emission by purchasing and retiring high-quality emission reduction certificates. The carbon credits purchased in 2019 reveal investments in a diversified product portfolio supporting climate change mitigation and economic development in Africa, Latin America and Asia. All offsetting projects comply with well-recognised global standards, including the Gold Standard (62%) and the Verified Carbon Standard.





Birgit Brenner
Sie merken, dass etwas nicht
stimmt, 2009
© courtesy Galerie
EIGEN + ART Leipzig/Berlin /
VG Bild-Kunst, Bonn 2020

Employee Engagement

We're all members of the project team

Nicola Gill is Deutsche Bank's Global Head of Internal Communications. She wants to convince as many employees as possible to go green.

Ms Gill, Deutsche Bank is in the midst of the biggest transformation in its history. Do staff even have climate change on their radar?

Of course the transformation is keeping all employees busy. Very many of them have been with the bank for years, some for decades – the company is in their hearts. That's why it's also important to them what role the bank plays in society and that it operates responsibly. As such, every topic that has social relevance immediately becomes an internal issue as well. It's good that this awareness of climate change has long since grown into active involvement.

What form does this take?

There's a sense of optimism that's spreading through every area of the bank. Employees are keen to play their part and urge the bank to do the same. They make suggestions for how to reduce power, water and plastic consumption. They ask why the company finances certain projects. And they share their own experiences. We have an intranet site where users can exchange ideas on this topic. In one post, an employee reported that working from home due to coronavirus has taught her that you can also work efficiently without printing out documents. Stories like this have an impact. One example of the scale of employee involvement is our tree-planting campaign, which we launched in 2010. We set ourselves the goal of planting 150,000 trees in time for our 150th anniversary – and we've achieved it.

How does the bank encourage employees to get involved?

Via targeted communication and events. Last year, we staged a staff event with a climate researcher, a philosopher and experts from within the bank. In the discussion session that followed, we were absolutely bombarded with suggestions. One of these led to our campaign to have plastic cups removed from all locations in Germany. The manufacturing and life cycle of plastic is responsible for more than ten per cent of global CO₂ emissions. We're now reducing plastic consumption by half a million cups and 200,000 lids every year.

Are campaigns of this kind truly sustainable in the sense of resulting in a lasting commitment?

There's a lot more going on. At a senior managers' conference, we organised a so-called barcamp on climate change and the ideas presented there are meant to be adopted in the regions and translated into specific actions. And then there's our #PositiveImpact campaign: we ask staff to post details of how they're helping the environment using the hashtag #MyGreenImpact. This also triggered impressive

Nicola Gill: "There's a sense of optimism that's spreading through every area of the bank"



responses, and new ideas continue to be posted. In addition, there is a variety of projects in which experts from the bank help fledgling start-ups to develop their climate-neutral ideas. After all, we can also play our part by providing advice.

Do you have a specific target for employee involvement?

In the bank, a lot of work is done on a project basis and by project teams. This won't work with climate-related matters. The best case scenario here is that every single employee is a member of the team and makes their own contribution. Each individual can turn the tap off more quickly to save water, not leave lights on for so long and do double-sided printing or not print documents at all. And that is exactly the reason why so many people get involved. As a company our behaviour hasn't always

been exemplary. This pains a lot of people in the bank, especially as there was nothing they could do about it. But every single one of us can really make an impact on the climate. And that is precisely our objective: to convince people that fighting climate change doesn't have to mean going without certain things; it's something we all benefit from.

What does the topic mean to you personally?

I, too, needed a climate researcher to open my eyes to the topic. I realised that children being born today will no longer be able to play outdoors in the sunshine in the fields without a care – as we were once able to. The danger is clear and present, our way of life and that of our children is at stake. So doing something about it should actually be the most important priority for every single one of us.

Water creates life anew

Rosette D'souza, COO Finance Center India, explains how Deutsche Bank is building sustainable rural communities with Swades Foundation and thus fighting the consequences of climate change.

In February of this year, my team and I from the India Finance Center visited one of Deutsche Bank India's community project sites in Raigad, Maharashtra for our annual team-building retreat. Instead of building Excel spreadsheets, we built sanitation facilities for a rural school, learning first-hand about the impact of our CSR water project, which is administered in partnership with Swades Foundation.

The mission of India's not-for-profit Swades Foundation is to empower one million lives in rural India through 360-degree development across health, education, water and sanitation and economic development and create a development model that can be replicated at scale.

Since August 2016, Deutsche Bank has been sponsoring a major water harvesting initiative with Swades Foundation to help communities in the drought prone districts of Raigad cope with the climatic challenges. Raigad, to the east of Mumbai, has a perennial scarcity of water and the region is mostly arid through summer. Deutsche Bank's "water for agriculture" project focuses on sustainable development of the entire district and has resulted in the revival of the economy.

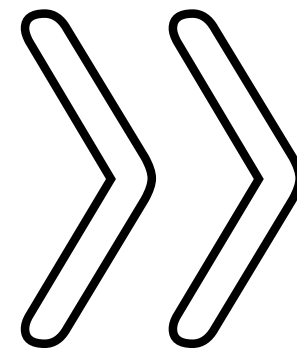
Rainwater harvesting structures have been constructed and maintained, and scientific methods of farming such as drip/flood irrigation on barren fields and mulching have been incorporated, resulting in water supply in the remotest of areas of Raigad. We learned from the community members that these structures and the measures taken

are helping fight the drought. They are recharging the groundwater and therefore building up the water table, which has further resulted in a healthy crop, increased the income of farmers, and enhanced the livelihoods of rural households.

With regular water supply for agricultural irrigation and to every household for drinking, Raigad's water problems are a thing of the past. The project is unique because it is designed to ensure that after Deutsche Bank stops working in the village, our achievements will help the communities sustain themselves and cope with the changing climate and drought in the future.

Furthermore, new opportunities are opening up when migrant farmers return home to Raigad from the cities. Ketan Wage is one such farmer who is currently experimenting with exotic vegetables and creating a plan for agri-tourism in the community. Ashwini Shailesh Kendre is another who worked closely with Swades and is now heading the project for the construction of a small dam in her village.

My team visited Raigad after attending a session in Mumbai last



The project has had a positive impact on 7,633 households«

year when we met 28 Raigad farmers who explained the impact of the bank's project and shared how their lives have changed for the better. The Deutsche Bank-funded project has had a positive impact on 7,633 households, helping over 38,000 people and given farmers access to 100 water schemes.

Deutsche Bank volunteers also regularly engage with Raigad residents through tree-planting drives

and building sanitation blocks. In November 2019, 52 employees from the Pune office spent a day in Raigad and assisted the community in cultivating small gardens.

Our visit to Raigad was very enriching, and seeing how Deutsche Bank, via Swades Foundation, is helping to create a sustainable rural community makes me proud of our institution. <

What if we told you we could change the way 4.5 million people think about sustainability ... overnight?

Hackathon winner Peter Suggitt builds an app to help you track – and lower – your carbon footprint.

In October 2019, a London team of 10 colleagues won Deutsche Bank's "Banking on Sustainability" 24-hour hackathon. Over 1,000 global participants worked on apps to help the bank contribute towards a sustainable future. Peter Suggitt from the winning team shares his experiences.

The energy in London was palpable, with hundreds of people in the auditorium and hundreds more joining from around the world. My team had a good idea and a good strategy: I had high hopes. Our concept was Amplify, a sustainability indicator connected to purchases. So each time you make a purchase, it gives you a score. Buying local, organic fruit will boost your sustainability score but buying petrol will reduce it. This running tally highlights

your carbon impact and helps you to do something about it, such as one-off contributions to carbon offsetting projects or an ongoing "roll-up" scheme that rounds your transactions up to the nearest euro and donates the difference to a climate-change project. In our mock-up, Amplify is an extension to the existing mobile banking app showing your sustainability score right next to your bank balance.

Four and a half million people use the banking app, offering the potential for immediate impact, especially if Amplify is introduced as a default

function for all customers. This would show current clients that we're serious about sustainability and potentially attract new clients for whom sustainable banking is important.

Over 24 hours, we worked to bring this idea to life, creating a prototype and pitch. Our strategy was to sell the idea rather than try to build a complete product. We wanted to show how tech can be used to solve a problem.

We pitched the idea under our tagline: "What if we told you we could change the way 4.5m people think about sustainability ... overnight?" We only got one or two hours of sleep but it was worth it to be part of the hackathon and create something that could create a lasting change for Deutsche Bank and its current and future clients. <

Employee Engagement

It is important for us to engage our employees as multipliers for our commitment to sustainability.

- At a panel discussion in February 2019, a climate researcher and a philosopher discussed the role of banks and in particular our role in tackling climate change with employees in Frankfurt.
- On our #PositiveImpact hub a #MyGreenImpact campaign enabled employees worldwide to share their best practices, advice and tips for reducing our individual and corporate carbon footprints.
- In a global "Banking on Sustainability" hackathon, more than 1,100 employees worked to create digital solutions to help Deutsche Bank contribute to a sustainable future.
- Roughly 70 individual tree-planting campaigns have been conducted. <



Thought Leadership

»We are looking for allies«

Jörg Eigendorf, Head of Communication and Sustainability, on the important role of networks.

Mr Eigendorf, you're not only Head of the Communications & Corporate Social Responsibility department, but also responsible for Sustainability at Deutsche Bank. What drives you personally?

In my opinion, one of the most important questions ever is how we humans fight climate change. And banks play a key role in this fight – first and foremost global banks like Deutsche Bank. One of the ways we help is by the things we do: sustainable loans, for example. And we can help by not doing certain things: for instance, transactions that pose a heightened risk to our climate. It's a huge but highly motivating task.

The Sustainability function is actually only one of six functions in the Communications department. Ultimately, is sustainability more about sending positive messages?

Numerous companies, Deutsche Bank included, previously addressed sustainability from a reputational angle. Things have changed, though. Sustainability is now one of our strategic priorities and it's also a factor that helps us achieve our financial objectives. And that's why we have to steer and control the topic across the entire group. That is the main task of the Sustainability Council and the bank's Sustainability team. So in my job, I'm dual hatting; I'm responsible for communications and reputation issues but also

for sustainability. They are distinct topic areas. After all, we have to know what our stakeholders' concerns are – including non-governmental organizations; we need to be in constant dialogue with them on what we are doing and why.

As Chief Executive Officer Christian Sewing says, it's obvious that Deutsche Bank can't drive the change to a more sustainable economy on its own. How important are networks in promoting this goal?

They're vital, one reason being that networks provide a forum for knowledge exchange. Anyone who wants to have a say in establishing rules and a framework needs to join others at the table. Without this, we wouldn't be able to adequately assert our influence and would risk having to accept high regulation costs later. So it makes sense to be a part of these networks – if only from a business angle.

Where and how do you look for partners?

Jörg Eigendorf: "Sustainability is one of our strategic priorities and it's also a factor that helps us achieve our financial objectives"



On many levels. We have strategic partnerships within the financial sector and beyond. As a member of the United Nations Environment Programme Finance Initiative, we have been looking into how we can partner with other banks to feature climate risks more prominently in our risk assessment process. And as one of the founding members of the Value Balancing Alliance, a network of international corporates, we are working on a standardized method to measure and monetize the environmental and social impact of our business activities along the entire value chain.

Of course, as one of the financial industry's global voices, we also join in the political and regulatory debate. Europe is one of the forerunners here; in Asia we're also

seeing substantial momentum, while in other regions politicians are unfortunately still giving partially contrasting signals.

Aren't people very sceptical of banks? After all, they lost a great deal of trust during the financial crisis.

Yes, there is a general sense of scepticism but to a certain degree, that's healthy. Recognising what happened in the past is also the basis for developing the necessary trust and altering people's perception of us, with more and more people accepting us as a key ally. At the end of the day, we all have the same goal: a world worth living in.

But Non-Government Organisations (NGOs) are often among Deutsche Bank's heftiest critics, for instance at the Annual General Meeting.

That's what they're there for, and we listen very carefully to what they have to say. NGOs have

› repeatedly drawn our attention to weak points or misguided developments – and rightly so. Their criticism also helps us inside our bank. Of course, there are times when we are of a different opinion and come under fire that is both excessive and unjustified. In these cases, we have to be transparent and explain what we are doing and why. No matter what, it's clear that NGOs are important observers, following what we do, and we would do well to meet as equals.

You also need allies within the bank to promote sustainability. Did you experience any opposition after taking up your position, say from the business divisions?

When I joined Deutsche Bank back in 2016, sustainability still hadn't been sufficiently anchored in our business strategy; it was still perceived as a niche topic and as one element of social responsibility. Of course there has been opposition on numerous occasions. No one from the business is going to shout whoopee if they have to lose out on revenues because we've decided to tighten a bank policy. But in the meantime there has been a fundamental change in the mood here at the bank. On the Sustainability Council, business divisions cooperate closely with infrastructure functions; everyone understands that the topic is one of our strategic priorities. And nowadays it's even the business divisions themselves that are driving the trend because it's what their clients are asking for.

One last question: where do you see Deutsche Bank in ten years in terms of sustainability?

If you ask me, a ten-year span is far too long when you consider we're talking about problems like climate change and social challenges that we need to tackle all across the world. I hope

that very soon sustainable business practices become a natural part of our business model and a part of our strategic planning process. We're ideally positioned, really, with our Corporate Bank and our Investment Bank on the one hand and our asset management business and the Private Bank on the other. We can cover the entire value chain. We just need to have it on our agenda and establish the right processes. In short: it won't be long until we're not only an exemplary corporate citizen but a profitable one, too. That should be everyone's goal. ‹

Thought leadership

In line with our ambition to be a leading voice, we contribute our expertise to advance sustainability issues in political and social discussions and actively participate in a broad sustainability network.

Our Corporate Bank Chief Financial Officer and DWS's Chief Investment Officer for Responsible Investments have been appointed to the Sustainable Finance Advisory Council inaugurated in 2019 by the German Federal Government to support the development of a national sustainable finance strategy. Additionally, DWS's Head of Responsible Investments was elected to the board of the Institutional Investors Group on Climate Change (IIGCC). The IIGCC is a leading global investor membership body and the largest one focusing specifically on climate change. IIGCC has over 190 members, among them many of the largest asset owners globally.

The political and regulatory agenda in many jurisdictions delivers clear supervisory expectations for banks to manage sustainability risks with a focus on climate-related risks. We are contributing to the discussions on developments in sustainable finance with trade associations, and responding to consultations, including those from the European Banking Association, the Network for Greening the Financial System, and the Technical Expert Group.

We take part in a number of innovative initiatives at a global, EU and national level. For example, since 2019 we have participated in the pilot project led by the United Nations Environment Programme Finance Initiative and the European Banking Federation to draw up guidance on the voluntary application of the EU taxonomy

to core banking products. Furthermore, we joined nine international corporates in establishing the Value Balancing Alliance, a cross-sectoral initiative that will create a global impact measurement and valuation standard for monetising and disclosing the total value that companies bring to society. ‹

- Member of the UNEP-FI (since 1992)
- Participation in the UN Global Compact (since 2000)
- Signatory of the Principles for Responsible Investment (through DWS, since 2008)
- Supporter of the Green Bond Principles as part of a coalition of 12 major financial institutions (2014)
- Signatory of the Paris Pledge for Action (2015)
- Accredited partner of the UN Green Climate Fund
- Formal supporter of the recommendations developed by the Financial Stability Board's Task Force on Climate-related Financial Disclosure (TCFD) (2018)
- Co-founder of the UN Principles for Responsible Banking (2019)
- Founding member of the Value Balancing Alliance (2019)
- Signatory to the Collective Commitment to Climate Action of the German Financial Sector (2020)

DWS:

- Signatory to the Carbon Disclosure Project
- Member of the Ceres Investor Network on Climate Risk and Sustainability
- Signatory to Climate Action 100+
- Founding member of the Climate Policy Initiative's Global Innovation Lab for Climate Finance
- Founding member of the Coalition for Climate Resilient Investment (CCRI)
- Founding member of the EU Energy Efficiency Financial Institutions Group

The Deutsche Bank Collection

For 40 years, the Deutsche Bank Collection has shaped the global culture of the company. In line with its motto "Art-Works" it offers clients, employees and the general public access to contemporary art – in around 600 of the bank's properties worldwide, in international exhibitions, at the PalaisPopulaire in Berlin and through targeted educational programmes. With its focus on international contemporary art on paper and photography, the Deutsche Bank Collection serves as a think tank for the future: it asks questions, inspires people and opens up new perspectives.

More information about the art programme of the DB: db.com/art



Frank Thiel
*1966 Kleinmachnow
Lives and works in Berlin
Perito Moreno #1, 2012/13,
Photograph
306,7 x 907,4 x 6 cm



Pavel Pepperstein
*1966 Moscow
Lives and works in Moscow
Europa V, 2005
Watercolor and ink



Paulina Olowska
*1976 Gdansk
Lives and works in Berlin and Warsaw
Car Mobile Collage, 2009
Silkscreen
250 x 168 cm



Wolfgang Tillmans
*1968 Remscheid
Lives and works in London
Fluten, 1997
Photograph
145,5 x 211 cm



Birgit Brenner
*1964 Ulm
Lives and works in Berlin
Sie merken, dass etwas nicht stimmt, 2009
Gouache
35,5 x 25,5 cm



Rainer Fetting
*1949 Wilhemshaven
Lives and works in Berlin
Girl and Vogel, 1982
Tempera
69 x 99 cm

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