

WHITE PAPER: SUSTAINABILITY & SUSTAINABLE FINANCE

SUSTAINABLE BANKING – FROM GREENWASHING TO GAME CHANGER

TERRA INSTITUTE - APRIL 2021

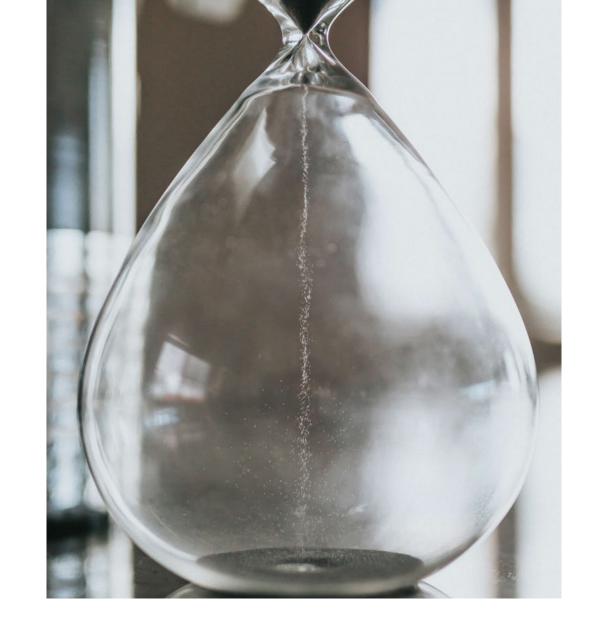
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EMPOWERING RESPONSIBLE GROWTH



MANAGEMENT SUMMARY

- The topic of sustainability is not new and has been somewhat overused in recent years. Currently, it is gaining a whole new momentum due to a number of developments. People now see it as more important and more urgent.
- In light of the new legal frameworks and developments, the financial sector plays a key role in the required transformation. At the same time, very few stakeholders know how to deal with all these innovations.
- The new regulatory framework is currently occupying many decision-makers in the banks. The requirements must be carefully addressed and implemented. In our experience, however, what makes the real difference is a culture of sustainability combined with a profound engagement with the topic. We expressly warn against taking too narrow a view!
- Despite all the difficulties, there are also enormous opportunities for institutions to pose themselves new questions and look beyond their previous horizons.
- It is precisely this shift in mindset combined with the necessary portion of courage that is now required. In many cases, old "crusts" need to be softened and new ways of thinking need to be allowed.
- This white paper is intended to provide a holistic overview of the currently prevailing topics in the field of sustainability in banks and sustainable finance. At the same time, it should be regarded as an open document that will be constantly updated.





FOREWORD

As we are increasingly confronted with the catastrophic and unpredictable consequences of climate change and resource depletion, urgent action is needed to adapt policies to this new reality. The financial system has a key role to play in this. To capitalise on the lessons learned from the financial crisis, the financial system is currently being reformed and, against this backdrop, can become part of the solution for a greener and more sustainable economy.

Finance supports the economy by financing economic activity and ultimately creating jobs and growth. Investment decisions are usually driven by a number of factors, but often those based on environmental and social considerations are not sufficiently taken into account, as the associated risks are expected to take longer to materialise.

Much has happened since the climate summit in Paris (2015) and the necessary transformation has been prepared in depth. The financial system is of particular importance in this context. It should ensure that funds are primarily directed towards sustainability, thus releasing the corresponding energy for implementation. Here, too, sustainability is given completely new levels of consideration.

This white paper, as a live document, is intended to provide an overview of the innovations and challenges for banks, to invite reflection and discussion and to bring together different experiences and backgrounds. Enjoy reading – and implementing!



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BACKGROUND: DEVELOPMENTS AND INTERNATIONAL AGREEMENTS

With the adoption of the Paris Climate Agreement and the UN 2030 Agenda for Sustainable Development in 2015, governments from all around the world decided to set a more sustainable path for our planet and our economy. The UN 2030 Agenda focuses on 17 Sustainable Development Goals (SDGs). Over the next 15 years, these goals will guide us into a future that ensures stability, a healthy planet, as well as fair, inclusive and resilient societies and thriving economies.

The Paris Climate Agreement was signed by 195 countries and is the first universal and global climate treaty. It has three main goals:

- Limiting global warming to well below 2 °C.
- Strengthening climate resilience, i.e. adaptation to the climate change, which is already unavoidable.
- · Reconciling financial flows with climate goals.

Sustainability and the transition to a low-emission, resource efficient circular economy play a crucial role in securing the long term competitiveness of the EU economy. Sustainable development has been at the heart of European policy-making for many years, and its social and environmental dimensions are recognised in EU Treaties.

DEVELOPMENT OF THE SUSTAINABILITY TOPIC - FROM NICE TO HAVE TO MAINSTREAM

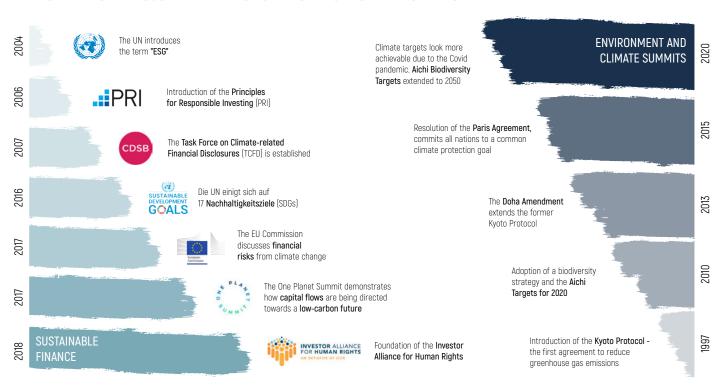


Figure 1: Development of Sustainability

Source: UN Framework Convention on Climate Change; Deutsche Bank Wealth Man. / Nov. 2020

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EXCITING AND VALUABLE DEVELOPMENTS IN RECENT YEARS - BIG CHANGE IN DENSITY AND CONTENT

The Paris Climate Agreement, together with the UN 2030 Agenda and its 17 SDGs, marked a turning point in the sustainability debate. Despite uncertainties about their success back then, today it is clear that they have given rise to very important events.

With the Action Plan on Financing Sustainable Growth and the European Green Deal, the European Commission placed climate protection and sustainability at the core of its work.

The financial sector is also being held accountable for this. Under the term "Sustainable Finance", new regulations are being created to ensure that the required financial resources are directed towards sustainability in order to promote such an important and necessary transformation.

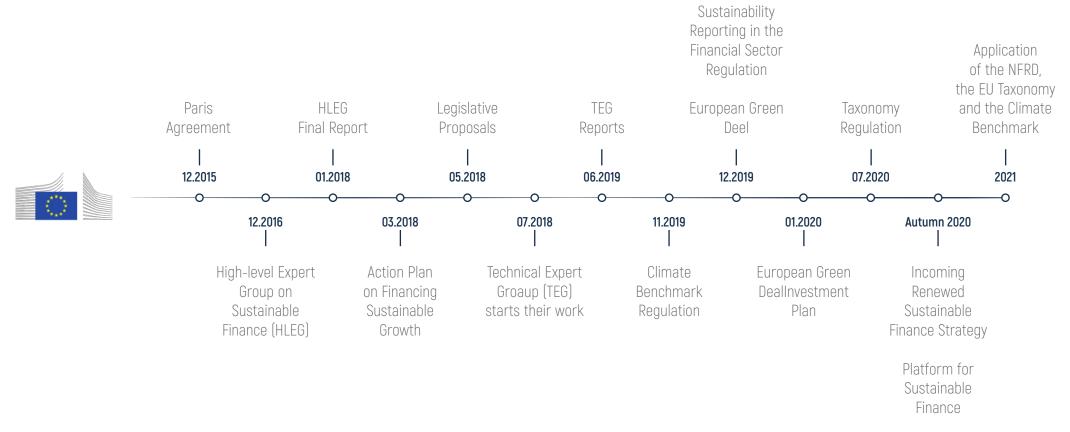


Figure 2: Developments and International Agreements

Source: Adapted from Frankfurt School Development & Finance – based on a document from the European Commission

11 FU ACTION PLAN TO FINANCE SUSTAINABLE GROWTH

The comprehensive EU Action Plan provides the framework for the implementation of environmental policy objectives

The Action Plan on Sustainable Finance is part of a wider effort to connect finance with the particular needs of the European and global economies, to the benefit of the planet and our society. The specific goals of the Action Plan are:

- 1. Reorienting capital flows towards sustainable investments in order to achieve sustainable and inclusive growth;
- 2. Managing financial risks stemming from climate change, resource depletion, environmental degradation and social issues; and
- 3. Fostering transparency and long-termism in financial and economic activities

EU ACTION PLAN ON

Reorienting capital flows towards sustainable investments

SUSTAINABLE FINANCE

- In order to meet the EU's climate and energy targets by 2030, a gap of €180 billion per year must be closed.
- Creating a more resilient and competitive economy by streamlining production processes and transitioning to a greener circular system.

Embedding Sustainability into Risk Manage-

- · Limiting the financial impact of environmental and social risks.
- Appropriate consideration of environmental, governance and social risks by the financial sector in risk analysis.

Fostering Transparency and Long-termism

- Transparency as a basis for financial market participants to adequately assess the longterm value creation of companies and their management of sustainability risks.
- Steer companies in a more sustainable and long-term direction.

CONTENT DECIMED

DEVELOPMENT OF THE SUSTAINABILITY TOPIC - FROM NICE TO HAVE TO MAINSTREAM

9. Disclosure

Requirements

10. Corporate Gov-

ernance

	IN THE EU ACTION PLAN
1. Taxonomy	Establishing an EU classification system for sustainable activities
2. Standards	Creating standards and labels for environmentally-friendly financial products
3. Sustainable Projects	Promoting investment in sustainable projects
4. Financial Advice	Incorporating sustainability into financial advice
5. Benchmarks	Developing sustainability benchmarks
6. Sustainability Ratings	Better integration of sustainability in ratings and market analysis
7. Sustainability Duties	Clarification of the duties of institutional investors and asset managers
8. Supervisory Regulations	Consideration of sustainability in supervisory regulations

accounting rules

Strengthening sustainability disclosure and

Promoting sustainable corporate governance and

reducing short-term thinking in the capital markets

Figure 3: EU Action Plan on Sustainable Finance

Source: Based on the European Commission

1.2 OVERVIEW OF RELEVANT REGULATIONS

Financial Institutions need to develop a sustainability strategy or adapt their existing strategy accordingly

At the end of 2019, the BaFin Guidance Notice on Dealing with Sustainability Risks was published in Germany, and the FMA guidelines were published in Austria.

Both documents are based on the Sustainable Development Goals (SDGs) and the 2030 Agenda, and their explicit objective is to include sustainability risks into Risk Management. They are meant to guide and prepare companies towards the implementation of the EU Disclosure and Taxonomy Regulations.

While sustainability risks are not a new type of risk, they can have a strong impact on existing risk types. Therefore, they should be integrated into Risk Management and the overall Risk Strategy. This will create a new risk culture. Institutions will be explicitly required to examine how (physical and transition) sustainability risks affect their existing risk situation.

OVERVIEW OF RELEVANT REGULATIONS BASED ON THE EU ACTION PLAN AND THE FMA/BAFIN GUIDELINES

TAXONOMY

- The aim is to create an EU classification system for environmentally sustainable economic activity.
- Financial market participants must disclose how and to what extent the investments in environmentally sustainable economic activities underlying the financial product are to be classified.
- Disclosure must be made in pre-contractual information and periodic reports.
- The portfolio must make a minimum percentage of investments in environmentally sustainable economic activity in order to obtain future EU Ecolabels.

DISCLOSURE REGULATION

- The disclosure rules require financial market participants and financial advisors to disclose how sustainability risks are taken into account in the investment decision-making process or in the investment advice given.
- Financial market participants must carry out a product classification, i.e. which product is a "mainstream", "light green" and "dark green" product.
- Disclosures are made on the website, in regular reports and in pre-contractual information (e.g. fund prospectus).

MiFID II

- Sustainability risks must be assessed and integrated into policies and processes.
- The target market for each financial instrument must be expanded to include ESG criteria.
- Sustainability aspects must be incorporated into processes, systems and controls.
- Sustainability preferences must be asked for in the investment advice and taken into account in the suitability test.

BAFIN FACTSHEET / FMA GUIDELINES

- BaFin (Germany) published a factsheet or guidance notice on dealing with sustainability risks in Autumn 2019 and the FMA (Austria) in July 2020.
- It is a compendium of non-binding procedures for regulated entities, in particular how sustainability risks can be integrated into the organisation in a holistic manner.
- Both organisations expect companies to ensure that sustainability risks are considered in the identification, assessment, monitoring and management of all (material) risks and documented accordingly.

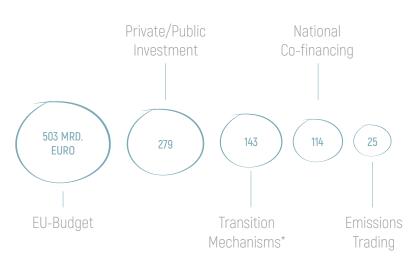
Source: Based on the European Commission

1.3 GREEN DEAL - GROWTH PLAN FOR EUROPE

The European Green Deal is the roadmap for a sustainable EU economy. This will be achieved by turning climate and environmental challenges into opportunities across all policy areas, and by making the transition just and inclusive for all.

The European Green Deal provides an action plan to boost the efficient use of resources by moving to a clean and circular economy, and to restore biodiversity and combat pollution.

The plan outlines what investments are needed and how they can be financed. It explains how to ensure a just and inclusive transition. The EU aims to be climate neutral by 2050. Building on this, a European Climate Law was proposed to turn this political commitment into a legal obligation.



* For coal/oil dependent regions, companies, workers

All sectors of the economy must make an active contribution, including:

- Investing in new, environmentally friendly technologies
- Supporting the industry to innovate
- Rolling out cleaner, cheaper and healthier forms of private and public transport
- Decarbonising the energy sector
- Ensuring buildings are more energy efficient
- Working with international partners to improve global environmental standards

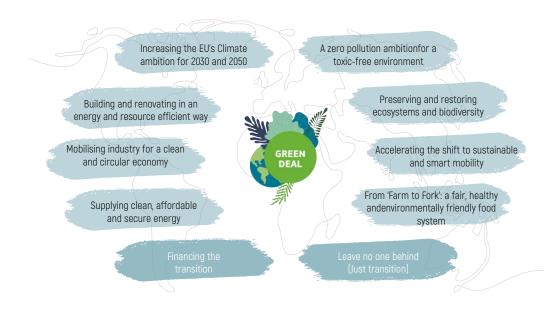


Figure 5: EU Green DealSource: Based on the European Commission

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1.4 EU TAXONOMY - NEW DEFINITION OF SUSTAINABILITY

In June 2018, a Technical Expert Group (TEG) was convened to advise the European Commission on specific questions regarding the legislative proposals and their further development. Specifically, it focused on the following issues:



Figure 6: Mandates of the TEG Working Group

Source: Based on the European Commission

The EU Taxonomy is part of the Action Plan on Financing Sustainable Growth presented in March 2018. A political agreement was reached between the EU Parliament and Council in December 2019, resulting in the Taxonomy Regulation. Since the regulation itself defines environmental goals and an understanding of environmental sustainability in economic activities in a rather abstract way, it is specified using technical criteria. The EU Commission has entrusted this task to the Technical Expert Group (TEG), which presented a corresponding report in March 2020. The report was preceded by extensive consultations with over 200 industry representatives and scientists.

The EU Taxonomy is mandatory, i.e. financial products can only be "environmentally sustainable" if they finance economic activities that meet the criteria of the Taxonomy. This provides for six environmental objectives – the activity must "substantially" contribute to at least one of them without "significantly" harming any of the other objectives. "Enabling activities" and "transition activities" are also included as special categories of "sustainable activities".

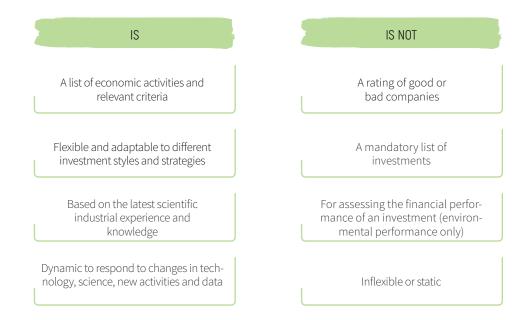


Figure 7: What is the Taxonomy – and what it's not?

Source: TEG

1.4 EU TAXONOMY - NEW DEFINITION OF SUSTAINABILITY

The Taxonomy Regulation obliges large companies (500 employees or more and a balance sheet total of more than 20 million euros or a turnover of more than 40 million euros) of "public interest" to disclose the proportion of their turnover, total investment and expenditure that is related to activities that are "sustainable" according to the Taxonomy. The regulation is directly applicable and does not require transposition into national law.

According to the Taxonomy Regulation, an economic activity is considered to be taxonomy compliant if it makes a significant contribution to at least one of a total of six environmental objectives, while doing no significant harm (DNSH). At the same time, certain minimum safeguards must be met, e.g. with regards to social and human rights.

According to Article 8 (2) of the Taxonomy Regulation, non-financial companies must publish the following information in the future:

- 1. The proportion of its turnover generated from products or services associated with economic activities that qualify as environmentally sustainable; and
- 2. The proportion of their capital expenditure and, where applicable, the proportion of operating expenditure related to assets or processes associated with economic activities that qualify as environmentally sustainable.

In terms of the Taxonomy Regulation, technical screening criteria are qualitative and quantitative indicators that determine whether and to what extent an economic activity can be considered environmentally sustainable. According to the regulation, the development of technical screening criteria should take into account the impact of economic activities on competition and markets, on existing green financial products, on financial stability, on market liquidity and on the risk of creating inconsistent incentives.

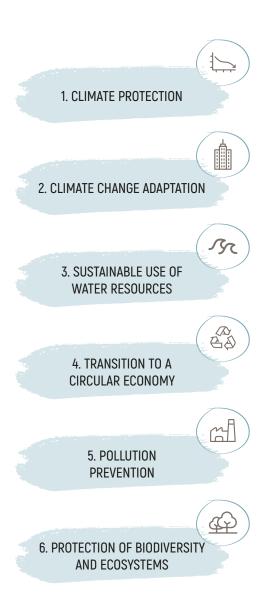


Figure 8: Environmental Goals of the Taxonomy

Source: TFG

1.5 CLIENT DEVELOPMENTS - SUSTAINABILITY IS ALSO PRESENT

The Sinus-Milieus are the result of 40 years of social science research (since 1978). The target group definition of SINUS is based on the life-world analysis of our society. The Sinus-Milieus group people who are similar in their outlook on life and way of life. The Sinus-Milieus describe the living environment of a person in a differentiated way, because the difference in lifestyles is often more important for consumption and brand preferences than socio-economic living conditions.

Figure 9 shows the proximity to sustainability of the individual segments. While about 10 years ago sustainability was primarily attributed to only one target group – the so-called LOHAS (Lifestyles of Health and Sustainability) – it is now present in all customer segments. This phenomenon can also be observed in the content development of almost all political parties in recent years.

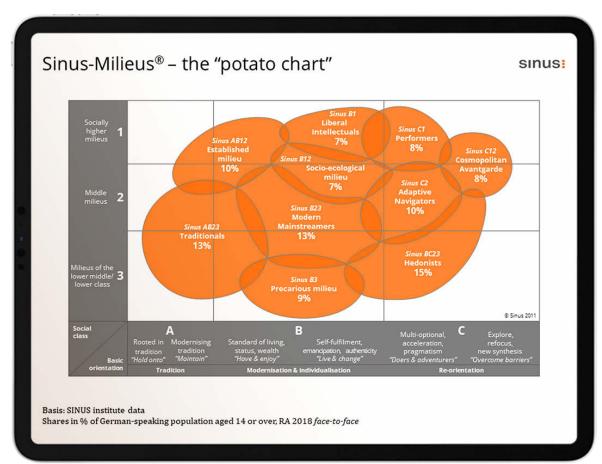


Figure 9: Proximity to Sustainability and Basic Attitude

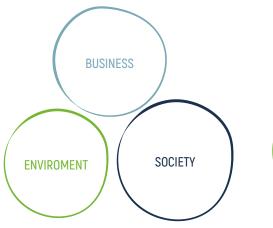
Source: Sinus 2019



DEFINITION OF SUSTAINABILITY

FROM TRIPLE BOTTOM LINE TO NESTED CIRCLES

Today, sustainability is no longer seen simply as a triad between ecological, social and economic considerations. There is actually much more to it than that. It is about presenting the issues in an integrated way, rethinking our economic system and aligning it with the integrity of nature and people.



VALUE FOR SHAREHOLDERS

The main purpose of companies is to make profits and maximise financial returns.

External costs (e.g. costs to the health system due to air pollution-related illnesses) are not internalised, profits are.



SHARED VALUE

The focus shifts to "good economic activity". Some of the external costs are internalised, but the approach is not deep enough as "harmful activities" are balanced with "good activities".



VALUE FOR THE SYSTEM

Businesses promote the sustainability and progress of society and the environment. It is not about "doing less harm" but "doing good".



- 17 targets, 169 sub-targets and 242 indicators
- Broad understanding of development: social, environmental & economic dimensions in equal measure, plus aspects of peace, democracy and rule of law.
- New global partnership global problems can only be solved through intensive cooperation in a new global partnership.
- Indivisible and mutually dependent.
- Measurable concrete indicators (developed by the statistics commission) to make the achievement of the goals measurable.
- Universally valid apply just as much to industrialised countries as to emerging economies & countries of the global south, to organisations, companies and civil society.

Figure 10: Sustainability Classification

Source: Terra Institute (own representation)

2.1 SUSTAINABILITY AND BANKS

In light of the latest developments, banks and financial service providers in particular are facing special challenges. On the one hand, they have to define and present the topic of sustainability for their own organisation (sustainability report). On the other hand, they also have to address all the different new topics, including:

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- Taxonomy
- MiFID II
- Disclosure Regulation
- BaFin Factsheet, FMA Guidelines

There is no universally valid definition of sustainability in the banking sector, just like there is none in any other sector. The sustainability report of the Federal Government speaks of an "economically efficient, socially balanced and ecologically compatible development". The basis is intergenerational justice.

The Brundtland Report of 1987, which is considered the beginning of the global discourse on sustainability, states that: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

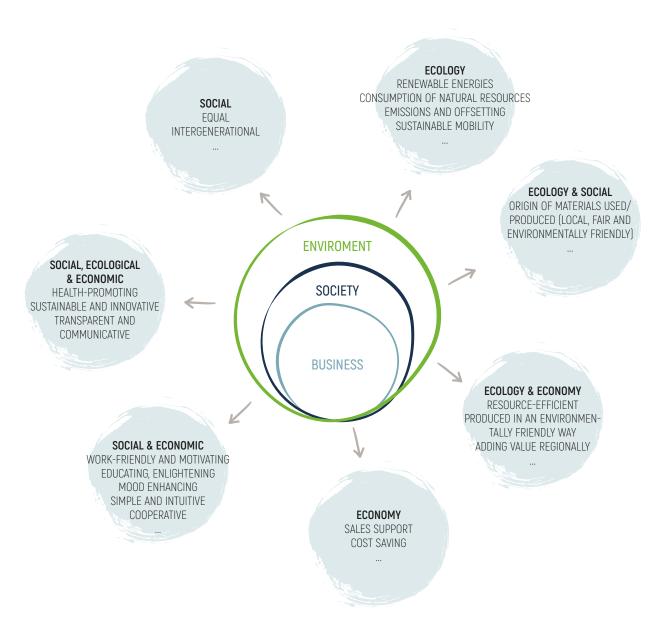


Figure 11: Examples of Sustainability in the Banking Sector

Source: Terra Institute (own representation)

2.3 WHERE DO BANKS STAND TODAY?

Banks face special challenges. Integration into its culture and products is the only way leading to a credible implementation. Many banks are still struggling to figure out and start the right approach and process on their own. However, it is inevitable.

Banks themselves will have to report on sustainability. They will also need to integrate the topic into their strategy and in various processes. Our experience shows that dealing with the topic usually mobilises a lot of energy - especially among employees.

We recommend a participatory process and integration into strategy and Risk Management.

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We also recommend inviting customers and showcasing to them the benefits of all these efforts. This requires enthusiastic employees who like to address the topic from within. It can thus become a differentiating factor for the bank and help clarifying the often forgotten question of meaning.

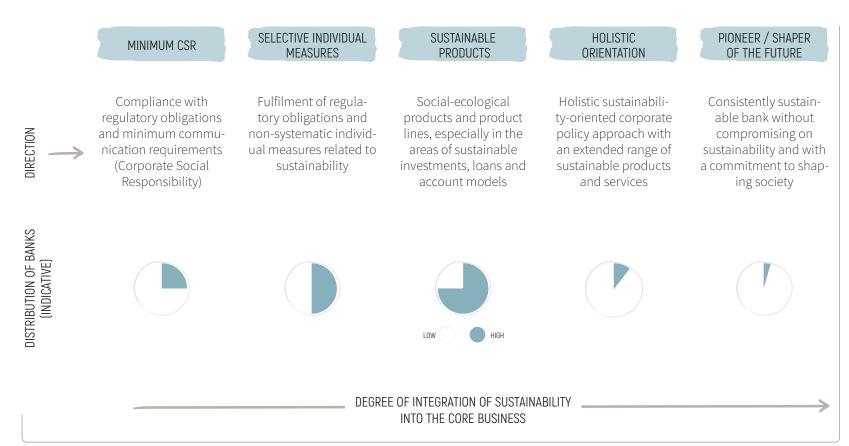


Figure 12: Degree of integration of sustainability into the core business

Source: zeb - Sustainability Study 2020

2.3 SUSTAINABILITY AND THE COOPERATIVE FINANCIAL NETWORK

In January 2021, the National Association of German Cooperative Banks (BVR) signed a so-called "Stakeholder Endorsement" to the United Nations (UN) Principles for Responsible Banking on behalf of the Cooperative Financial Network.

"With our regional roots, our closeness to members and customers, and our cooperative values, we can live the topic of sustainability in a credible way," emphasises BVR President Marija Kolak. The association thus commits to establishing the principles across its network and helping its members to implement them.

The starting point is the sustainability mission statement of the Cooperative Financial Network developed in 2020, which includes a commitment to the goals of the 2030 Agenda and the Paris Climate Agreement. In its position paper "Promoting Sustainability - Preserving Financial Stability" of November 2020, the BVR also takes a clear stance: "Sustainability is part of the brand essence of the German Cooperative Banks".



Figure 13: Sustainability of the Cooperative Financial Network

Source: Various BVR publications - DG Verlag publication (white paper)

GERMAN SAVINGS BANKS' VOLUNTARY COMMITMENT TO CLIMATE-FRIENDLY AND SUSTAINABLE ECONOMY

In their business areas, Savings Banks provide suitable financial services to support companies, private individuals and municipalities on their respective paths to greater sustainability and effective climate protection.

Four factors significantly shape the Savings Banks' understanding of sustainability:

- Acting responsibly in each respective business area
- Public mandate
- Entrepreneurial self-image; and
- The Principles for Responsible Banking issued by the Finance Initiative of the United Nations Environment Programme (UNEP)

The understanding of sustainability extends to the economic, social and ecological dimensions of sustainability and involves all areas of the company. Sustainability management therefore includes goals and measures in customer business, human resources, business operations, financing and the institutes' own investments as well as in local promotional activities.





03.

SUSTAINABILITY MANAGEMENT IN THE BANKING SECTOR

EXCITING AND VALUABLE DEVELOPMENTS HAVE IMPACTED THE BANKING BUSINESS IN RECENT YEARS

Sustainability can also be considered a game changer in the banking sector. Climate change, in particular, can be seen as the key transformational driver of the post-industrial revolution on a **social, ecological and economic level:**

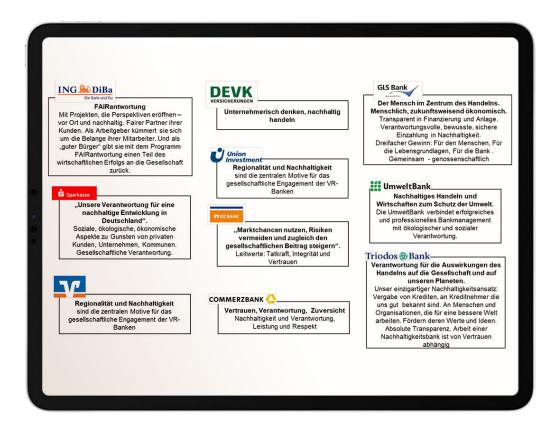
- Sustainability has reached the core of society
- Corporate decision-makers have also acknowledged its relevance
- Policymakers have understood climate protection as the task of the century

Impacts on the banking business:

- Sustainability is increasingly influencing consumer behaviour
- Additional potential available in PK and FK business
- New types of credit risks need to be measured and managed
- Increasing regulation due to transmission function foreseeable
- Entire value chain of banks affected

Transformation into a sustainable bank:

- · Creating clarity about stakeholders, positioning potentials and current maturity level
- Developing a holistic and individually credible strategic positioning
- Drawing up a strategic roadmap for the individual transformation path



3.1 SUSTAINABILITY STRATEGY

Every bank will need to address the issue and review all banking processes

All the banks are currently faced with the challenge of defining their own understanding of sustainability and translating the corresponding content into a clear strategy. At the same time, ESG issues must also be transferred to all products and reflected in risk management. This applies to the majority of operational processes as well as to support processes.

STRATEGY

Definition of strategic focus areas; short/medium-term impact of climate change risks on business model and strategy. Derive targets for the key areas of action and link to SDGs.

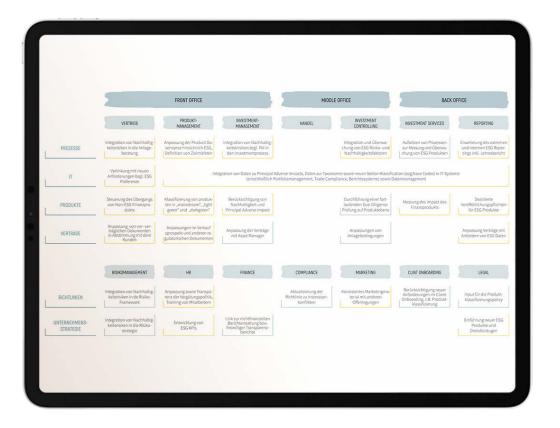
GOVERNANCE

Decision and presentation of the structural anchoring of sustainability in the company at different levels. Definition of information processes and reporting.

RISK MANAGEMENT

Development and explanation of the processes for assessing, managing and prioritising climate and ESG risks, including Taxonomy, MiFID II and Disclosure Regulation.

KEY FIGURES AND TARGETS Quantitative/qualitative representation for assessing ESG-related risks/opportunities. Target definition for assessing corporate performance – key figures and targets for risk and opportunity assessment.



3.1 SUSTAINABILITY STRATEGY: EXEMPLARY SUSTAINABILITY PROCESS FOR A BANK

Ideal process and holistic view of a sustainability strategy

As already mentioned, banks are currently in a particular area of tension. On the one hand, they are challenged to define the term sustainability and the most important fields of action for themselves. A stakeholder dialogue – i.e. a view from the outside – is recommended for this. On the other hand, they are required to integrate ESG issues in their risk considerations and in all core processes due to the emerging regulatory framework. Here we recommend systematically carrying out an impact and GAP analysis.

Subsequently, all topics should be incorporated into the strategic orientation of the bank, determining the target function and communicating accordingly both internally (staff training) and externally (sustainability report).

Sustainability is thus truly anchored in the company and its strategy, as opposed to an isolated corporate department or yet another report that is not lived.

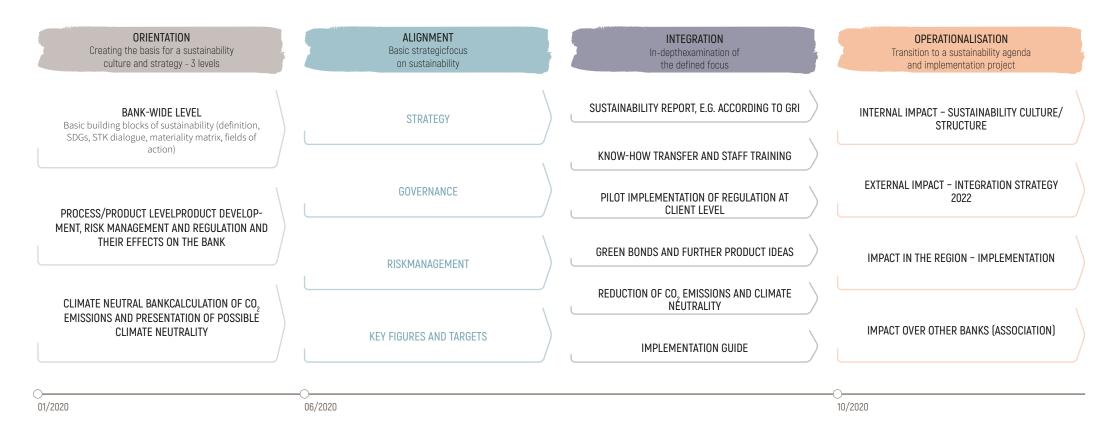


Figure 14: Process of Holistic Sustainability Strategy

Source: Terra Institute (own representation)

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3.2 SUSTAINABILITY CULTURE - PERSONAL DEVELOPMENT

Holistic Implementation

In order to implement a long-term, credible strategy, cultural work is required in addition to strategy work. This usually starts with the top management and is then extended to all areas. At the Terra Institute, we refer to this as inner work or personality development. Experience has shown that sustainable orientation achieves its greatest strength when people can relate to the topic on a personal level. It makes sense not only to address banking issues, but also to look at the topic of sustainability holistically:

- What does it mean for me personally?
- What does it mean in my personal environment?
- What can I do in my private life that corresponds to this basic logic?
- Why I do it, why I don't do it?
- What are the most important fields of action in the bank, in my department, in my field of activity?
- How do my colleagues see it?
- How do my clients see it?
- Where can I start myself?
- What does my personal consumption behaviour look like?
- How are other companies coping with this where are there best practices, where do I see greenwashing?

It comes down to presenting sustainability credibly for oneself and one's company. This can only be achieved by dealing with the topic on a personal level, enabling a transfer of know-how and personally emphasising (new) awareness in the company. This is also the task of modern leadership. Authenticity and credibility are the main drivers for employee engagement and "employer branding".

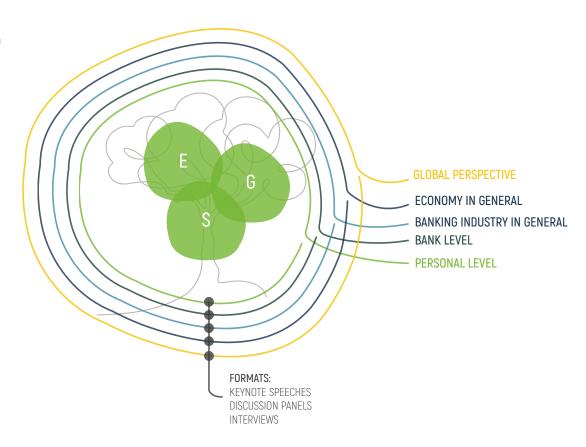


Figure 15: Training Levels ESGSource: Based on Hauck & Aufhäuser

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3.3 SUSTAINABILITY AT THE PRODUCT LEVEL - MAIN GREEN FINANCE INSTRUMENTS

Definition:

Green Finance includes the financing of public and private green investments (including preparatory and capital costs) in the following areas:

- Environmental goods and services (such as water management or protection of biodiversity and landscapes).
- Prevention, minimisation and compensation of damages to the environment and to the climate (such as energy efficiency or dams).
- Financing of public policies (including operational costs) that encourage the implementation of environmental and environmental-damage mitigation or adaptation projects and initiatives (e.g. feed-in-tariffs for renewable energies).
- Components of the financial system that deal specifically with green investments, such as
 the Green Climate Fund or financial instruments for green investments (e.g. green bonds
 and structured green funds), including their specific legal, economic and institutional
 framework conditions.

Financing that falls under the term Green Finance can be roughly divided into two categories.

Instruments from the first category serve to finance specific sustainable projects. The use of the funds collected through such an instrument is therefore earmarked. Sustainable project financing includes the following instruments, among others:

Development loans

State development banks have long been issuing special financing for sustainable projects. In the corporate world, this can include, for example, renovations for greater energy efficiency or projects that make the best possible use of waste heat from the production process. In the discussion on green finance instruments, however, these loans play a subordinate role, since they are about public capital. In the current debate, the focus is on controlling private capital flows.





The FNG (Forum Nachhaltige Geldanlagen), the professional association for sustainable investments in Germany, Austria, Liechtenstein and Switzerland, represents over 200 members who are committed to a more sustainable financial sector. These include banks, investment companies, rating agencies, financial advisors, academic institutions and private individuals. The FNG promotes dialogue and the exchange of information between businesses, scientists and politicians and has been campaigning for improved legal and political framework conditions for sustainable investments since 2001.





The Energy Efficient Mortgages Initiative is a global, market-led initiative with the aim of mobilising capital markets and implementing ESG best practices in the financial sector in support of the objectives of the EU Green Deal and Renovation Wave Strategy.

MAIN GREEN FINANCE INSTRUMENTS

Green Bonds

Green bonds are probably the best-known green finance instrument. Although the market is still quite young, the financing instrument has now established itself with both public and private players. The proceeds of a green bond can only be used for sustainable projects. The company itself determines what these projects are. Such bonds do not have a regulatory framework, but the Green Bond Principles (GBP) have become a market standard. It is also common practice to obtain a so-called second party opinion in the run-up to a green bond issue. This external opinion from a specialised sustainability agency confirms that the projects are suitable and that the issuer meets the market requirements for green bonds. In the meantime, the EU has also developed a Green Bond Standard, which is, however, not mandatory.

Green Loans and Green Promissory Notes

Following the same principle, any debt instrument can be turned into green financing. Loans can also be granted specifically for sustainable credits. The specific German financing instrument "Schuldschein" (Promissory Note) is also used to finance or refinance sustainable projects. The framework conditions for this are similar to those of a green bond. A second party opinion is also usually requested for such financing.

Green bonds emerged in recent years in response to the need to mobilise capital in support of the UN Sustainable Development Goals and the targets of the Paris Climate Agreement. Countries are moving towards a low-emission, climate-resilient future, and the desire for innovative financing solutions has grown since then. Green bonds can tap resources from domestic and international capital markets for climate change mitigation, renewable energy/renewable energy projects, as well as other green projects, such as in waste management.

The four core components of the GBP are:

- 1. Use of Proceeds
- 2. Process for Project Evaluation & Selection
- 3. Management of Proceeds
- 4. Reporting





Sustainability Linked Bonds (SLB) are a forward-looking performance-based instrument. The Bonds financial or structural characteristics (such as the coupon rate) are adjusted depending on the achievement of predefined sustainability targets. The adjustment can be in both directions, e.g. an increase in coupon rate if targets are not met or a decrease in coupon rate if targets are met. Key difference with Green/Social/Sustainability Bonds is that the proceeds can be used for general corporate purposes.

The SLBP have five core components:

- 1. Selection of Key Performance Indicators (KPIs)
- 2. Calibration of Sustainability Performance Targets (SPTs)
- 3. Bond characteristics
- 4. Reporting
- 5. Verification







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MAIN GREEN FINANCE INSTRUMENTS

Financing that falls under the term Green Finance can be roughly divided into two categories.

The second category of Green Finance Instruments developed later on. Both investors and companies had been seeking financing instruments that focused on the sustainability performance of the entire company. Financing with a sustainability component then emerged, with financing costs falling or rising depending on sustainability performance. The funds from such transactions are not project-related and can be used for all corporate purposes.

ESG-linked Loans

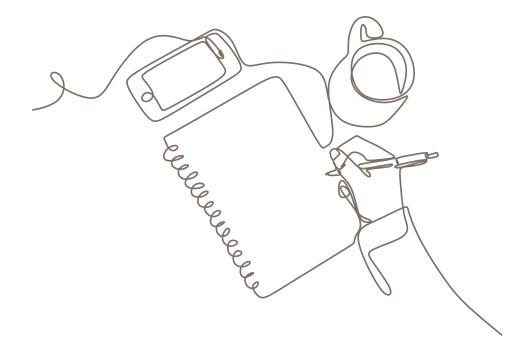
Loan agreements in which the interest rate is linked to a sustainability component are now widespread. They are called ESG-linked loans or sustainability-linked loans. Large German corporations in particular have discovered this variant for syndicated loans. The interest rate is usually tied to an ESG rating, i.e. the company's sustainability rating granted by a specialised sustainability agency. However, it is also possible to link the financing costs to individually agreed key figures. These can be CO₂ emissions or the share of renewable energies, for example. But many other key figures and social performance indicators are also possible.

• ESG-linked Promissory Notes

Likewise, a sustainability component can also be built into a promissory note. The function is the same, the interest rate can fall or rise depending on whether the company's rating improves or deteriorates, or whether it performs well or poorly on the sustainability indicators.

ESG-linked Bond

The inclusion of this component has not yet become established on the bond market. However, there have already been some first attempts. Italian electricity company Enel placed a bond in 2019 whose interest rate is linked to a sustainability target, specifically the promise to increase its share of renewable energies. If the company fails to reach the target, the coupon increases



"A Social Impact Bond is a a potential financing option available to support payfor-success programs. Social impact bonds bring together government, service providers and investors/funders to implement existing and proven programs designed to accomplish clearly defined outcomes. Investors/funders provide the initial capital support and the government agrees to make payments to the program only when outcomes are achieved. So government pays for success."

Source: Third Sector Capital Partners



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3.4 KEY FIGURES AND TARGETS: ESG ASSESSMENT & RISK MANAGEMENT

Both BaFin (Germany) and the FMA (Austria) take the risks resulting from climate change seriously. According to recent model calculations, the resulting losses could add up to US\$ 550 trillion worldwide if current developments continue. It is therefore suggested that the companies they supervise focus even more on these risks. Sustainability should not be limited to climate issues; other environmental and social trends can also pose serious financial risks to regulated entities. For example, one million animal and plant species are at risk of extinction, many within a few decades. This loss of biodiversity could have similarly severe financial impacts as climate change; for example, the risk to agriculture from the loss of pollinators can be as high as US\$577 billion annually, according to scientific estimates. For this reason, all ESG (Environmental, Social and Governance) risks should be considered.

Sustainability risks are environmental, social or corporate governance events or conditions, the occurrence of which may have actual or potential significant adverse effects on a company's net assets, financial position, results of operations and reputation; this includes climate-related risks in the form of physical risks and transition risks.



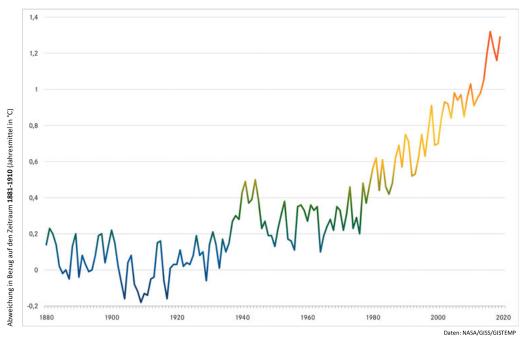


Figure 16: Climate facts - Increase in global mean temperature 1880-2019

Source: NASA/GISS/GISTEMP

Physical risks: These risks arise on an ad hoc basis or due to longer-term changes in climate conditions caused by climate change, which have financial consequences through direct damage to assets or indirect consequences through disruption to the supply chain.

Transition risks: These risks can be large-scale policy, technological and market changes that arise in complying with regulations to accelerate the implementation of a low-carbon economy.

3.4 KEY FIGURES AND TARGETS:ESG ASSESSMENT CORPORATE CLIENTS - TERRA ESG RISK ASSESSMENT TOOL

Building on the emerging developments, a team at Terra Institute developed an online tool through which banks can assess corporate clients on an individual client basis in terms of ESG and then incorporate the results into their own risk assessments:

- ESG assessment tool on an individual client basis (corporate clients)
- With industry-specific question focal points (materiality)
- Focus on medium-sized companies
- Super fast and efficient for bank use
- With various evaluation options for possible reporting (EBZ)
- For bank advisors with necessary background knowledge (training)
- For companies with valuable additional benefits (no tedious, additional bureaucracy)
- Very appealing customer experience and presentation

The process is designed to be very simple:





Figure 17: Dashboard Evaluation ESG Assessment Corporate Client Base

Source: Terra Institute



















3.4 KEY FIGURES AND TARGETS: MEASUREMENT OF FINANCED EMISSIONS FROM LOANS — PCAF EXAMPLE

The measurement of financed emissions from loans and investments was launched by PCAF (Partnership for Carbon Accounting Financials).

Portfolio Carbon Accounting is a transparency approach that provides financial institutions with evidence of the historical greenhouse gas emissions associated with their business.

The 6 topics below are analysed in detail:

- Listed Shares & Bonds
- Business Loans & Loans for SMFs
- Commercial Real Estate
- Mortgages (Personal Loans)
- Project Financing
- Vehicle Loans

This will enable financial institutions to identify carbon-intensive hotspots that may be exposed to higher transition risk and to include them in risk and strategy considerations accordingly.









MEASUREMENT OF FINANCED EMISSIONS -

























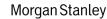
















The Core Team (16 financial institutions) volunteered to develop the Global Carbon Accounting Standard for the financial industry.

3.5 CO₂ FOOTPRINT AND CLIMATE NEUTRALITY – TAKING CONCRETE IMMEDIATE ACTION

In order to achieve the global climate goals to reduce global warming and protect the Earth sustainably, the reduction of greenhouse gases is a decisive lever – especially the massive reduction of CO₂ emissions.

Here, banks can become active above all in their business operations, specifically in the areas of personnel, building organisation, operational ecology, mobility as well as vendors and procurement. The fields of action for saving CO₂ range from commuting to the workplace to ecological buildings and renovations, waste avoidance, energy saving and the purchase of cooperative green electricity to e-car fleets and a conscious selection of suppliers.

The first step is to identify and quantify your own CO₂ emissions. How many natural resources does a person, a population, an activity, a company – or a bank – consume? And what is the ratio of this consumption to the capacity of the Earth? The "ecological footprint" represents the amount of productive land and water needed to produce the resources consumed and absorb the waste.

At Terra, we have already calculated CO_2 emissions for more than 200 companies of all kinds and developed ideas for reducing them. If a bank wants to become climate neutral, we usually work with myclimate as a compensation partner. In this context, however, we would like to emphasise the many ideas for offsetting that already exist within the organisation. Through various workshop formats – offline / online – we always manage to work these out and translate them into concrete measures. This creates great motivation and awareness, which in turn releases the energy for implementation.

5. COMMUNICATE

Website, social media, press releases and conferences. The Alliance is continuously reported on through various channels.

1. MEASURE

In the first step, the CO₂ emissions of the respective companies are determined, whereby initial savings or improvement potentials can already be identified.



2. REDUCE

In order to minimise the carbon footprint, the consumption of energy and resources should be reduced first and foremost. For this purpose, a so-called Energy Efficiency Day is held annually for mutual exchange.

4. CERTIFICATE

The calculation of the footprint via the Alliance can be credited towards ISO 14064 certification if required.



Unavoidable emissions are offset with the help of high-quality CO₂ certificates.





3.6 TYPES OF SUSTAINABILITY REPORTING

Different Reporting Standards

Companies – including banks – are increasingly required to document their actions and results with regards to sustainability. Consumers, a critical public (NGOs, media, authorities) as well as investors are increasingly interested in knowing how a company assumes responsibility for a sustainable future. And suppliers are increasingly being asked by their customer companies to report on their sustainable actions. In addition, due to the EU directive on non-financial reporting (2014/95/EU), companies of public interest (banks, insurance companies, utilities, etc.) with more than 500 employees or €20 million in total assets as well as listed companies are obliged

to report as of 1.1 2017. In addition to documenting the assumption of responsibility, a sustainability report also has an important internal function as a communication and management tool, because it presents the strategy, fields of action and results for sustainability in a comprehensible way. The first sustainability report is the foundation for the future series of reports. For reasons of credibility, image, effort and continuity, the leading standard GRI is best suited for a "good" sustainability report.



Figure 18. Overview of Different Types of Sustainability Reporting

Source: Terra Institute (own representation)



04.

REGULATORY EXPECTATIONS FROM ECB

For the second year in a row, the European Central Bank (ECB) has identified climate risks as a significant risk factor for the euro area banking system. The ECB believes that institutions should take a forward-looking and comprehensive approach when considering climate and environmental risks.

The European Commission's Action Plan on Financing Sustainable Growth aims to reorient capital flows towards sustainable investments, embed sustainability into risk management and foster greater transparency and long-termism. The European Banking Authority (EBA) has been given several mandates related to the banking sector in this context. Its purpose is to examine how environmental, social and governance risks can be integrated into the three pillars of supervision.

Based on this, the EBA has published an Action Plan on Sustainable Finance, which contains key messages for institutions on strategy and risk management, disclosure, scenario analysis and stress testing.

ECB - REGULATORY EXPECTATIONS REGARDING RISK MANAGEMENT AND DISCLOSURE

1.	Business Enviroment	Understand short, medium and long-term impacts of climate and environmental risks
2.	Business Strategy	Institutions to consider climate and environmental risks that impact their business environment
3.	Governance	Risk management should consider and monitor climate and environmental risks
4.	Risk Appetite	Explicitly include climate and environmental risks in their frameworks
5.	Organisational Structure	Distribute climate and environmental risks according to the three lines of defence model
6.	Reporting	Report aggregated risk data on exposure to climate and environmental risks
7.	Risk-Man. Framework	Integrate climate and environmental risks as determinants of established risk categories
8.	Credit risk	Monitor climate and environmental risks throughout the credit granting process
9.	Business Operations	Consider how the nature of the business could increase reputational or liability risks
10.	Market risk	Develop stress test scenarios that include climate and environmental risks
11.	Stress test and scenarios	Check adequacy of stress tests and include them in base scenario
12.	Liquidity risk	Assess whether climate risks could lead to net cash outflows/liquidity problems
13.	Regulatory disclosure	Publish meaningful information and key figures

05.

RECOMMENDATIONS FROM SFC GERMANY – SUSTAINABLE FINANCE COMMITTEE OF THE GERMAN FEDERAL GOVERNMENT

GERMAN FEDERAL GOVERNMENT TO ACCELERATE TRANSFORMATION THROUGH A SUSTAINABLE FINANCIAL SYSTEM

With 31 recommendations, the Sustainable Finance Committee (SFC) set up by the German Federal Government shows how the transformation of the national economy can be financed by a sustainable financial system.

The climate crisis, digitalisation and globalisation are triggering the transformation. Companies must develop innovations and change production methods, supply chains and business models more comprehensively and faster than before. Companies need capital for this transformation. To finance the European Green Deal alone, investments of at least one trillion euros must be mobilised across Europe by 2030.

The financial sector can mobilise this capital and use it effectively if companies make their transformation strategy transparent. The Committee has developed its recommendations for the resulting requirements on company reporting, on the knowledge and skills of the responsible individuals, and on the effectiveness of financial products. "The Committee's recommendations are concrete and practical," says Karsten Löffler, Chair of the Committee. "The German government's Sustainable Finance Committee has followed a systemic approach. It calls for the interaction of players and formulates recommendations for the policy framework."



Figure 18: Overview of SFC Recommendations

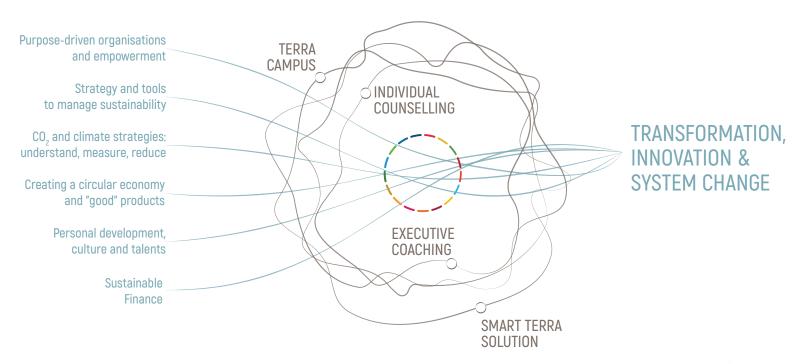
Source: SFC

BRIEF OVERVIEW OF TERRA INSTITUTE

WE BELIEVE THAT SOCIAL AND ENVIRONMENTAL RESPONSIBILITY AS WELL AS PERSONAL MEANING ARE THE SUCCESS FACTORS OF ENTREPRENEURS IN THE 21ST CENTURY THESE ENSURE SUSTAINABLE ECONOMIC PROFIT

We partner with companies both "inside" and "outside". The attitudes, values and ethics of managers and employees are crucial for the successful launch of good products, innovative business models and sustainable strategies.

A new entrepreneurship for global systemic change is what motivates us. Because the attitude (inside) and the behaviour (outside) of the economy are the decisive factor for a successful social transformation



2010

Evelyn Oberleiter and Günther Reifer found the Terra Institute 25

Advisors who are part of the team

3(

Trained Terra Certified Partners





Strategic partnership in the field of sustainability with ADG – Academy of German Cooperatives



2012 Accreditation as a Centre of Excellence for "Education for Sustainable Development (RCE)" by the UN University and the United Nations

TERRA SUSTAINABLE FINANCE RADAR

Open Document - Feedback and Suggestions Welcome

There is a lot going on in the field of Sustainability & Banking Sustainable Finance. Almost every day there are new publications, regulations and developments. At Terra, especially in the Sustainable Finance team, we are constantly collecting and analysing the latest developments and helping to keep track of them. If you are also interested in analysing, discussing and collecting data, please contact us. We look forward to every exchange of experience and every networking opportunity.

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