

>>> tranSForm: a key implementation project for KfW Group's Sustainable Finance Agenda

Last updated: January 2023



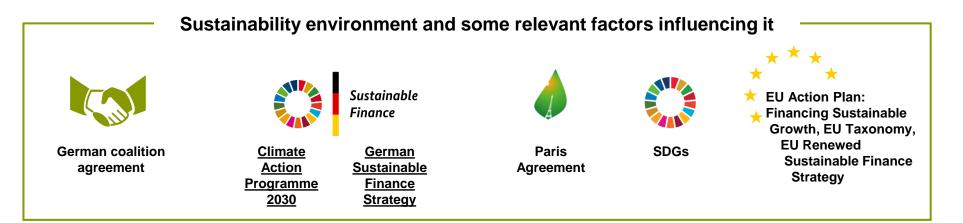
Contents

Introduction and overview of tranSForm project 2 KfW's sustainable finance strategy 2.1 Managing impacts 2.2 Promoting compatibility with Paris targets 2.3 Managing ESG risks with foresight 2.4 Reporting financial sustainability data 3 Summary and contact



Evolving further to become a transformative promotional bank

Effective supporter and pioneer on the way to a GHG-neutral future



"KfW is evolving to become a transformative promotional bank"

Sustainability strategy for Germany

tranSForm – the core of KfW's Sustainable Finance Agenda



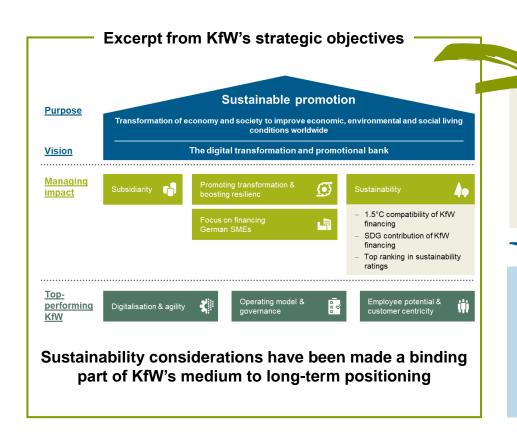
Regulatory requirements with regard to sustainability

LAW

Concerning KfW dated 5 November 1948.

KfW's sustainable finance strategy – tranSForm project

Sustainability considerations are set out in KfW Group's strategic objectives



KfW Group's strategic objectives establish sustainability as the
→ "transformation of economy and society to improve economic, ecological and social living conditions around the world"

Implementation of the sustainable finance concept by the

transform project's four pillars









Strengthening

of ESG risk

management

Reporting financial sustainability data



tranSForm project

Positioning KfW as a pioneer in sustainable finance

tranSForm project

Four pillars contributing directly to the new KfW agenda

KfW-wide impact management



Compatibility of KfW financing activities with Paris targets

Strengthening of ESG risk management¹



Reporting financial sustainability data



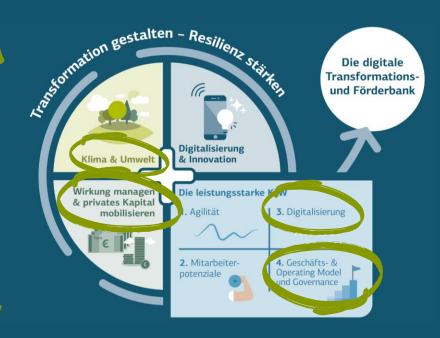
Data and IT implementation

¹ Environmental, social, governance



KfWplus+





tranSForm overview

Major implementation success already achieved

Targets

Implementation

KfW-wide impact management



- > Make SDG contributions transparent
- Communicate impacts more clearly
- > Strengthen data management

Compatibility of KfW financing activities with **Paris targets**

- > Support the **economy** in the transformation process
- > Promote sustainability in the financial markets
- > Achieve Paris climate goals

Strengthening of ESG risk management



- Improve ESG risks in terms of...
- ...recognition and assessment
- ...management
- ...transparency

Financial sustainability data

- Helping strengthen the transparency of sustainable economic activities
- Meeting the information needs of investors and stakeholders

implementation Successes in

- Around 50 impact indicators validated
- "Impact balance sheet" prototype created
- Group-wide guiding principles established
- √ Application system launched for collecting impact data
- Six sector guidelines developed in accordance with Paris Accords for emission-intensive sectors and revision to 1.5°C climate target
- ✓ Approximate GHG footprint determined
- ✓ Ambition level of "greenhouse gas-neutral portfolio" refined; measurement method defined

- Systematic screening of risk types and risk management cycle
- Development of an ESG risk profile database
- Climate risk stress tests
- Screening of regulatory requirements

- Analysis of the legal situation up to now
- Initial development of targets for the group-wide implementation of the EU taxonomy with business areas and subsidiaries
- **Initial reporting** on taxonomy indicators of KfW IPEX-Bank

Development of impact reporting strengthens the data pool for political decisions

- Harmonised impact management in addition to established group management
- Development of 1.5°C-compatible controlling measures for oil and gas
- Further operationalization of group-wide greenhouse gas accounting
- Develop GHG decarbonisation and neutralisation strategy
- Increased integration of detailed ESG data into the ESG risk profile
- Concepts for integrating ESG risks into risk management
- Further development of stress testing capabilities
- Further specification and procedural/technical implementation of the targets
- Monitoring, evaluation and active support for the implementation of requirements for financial sustainability reporting



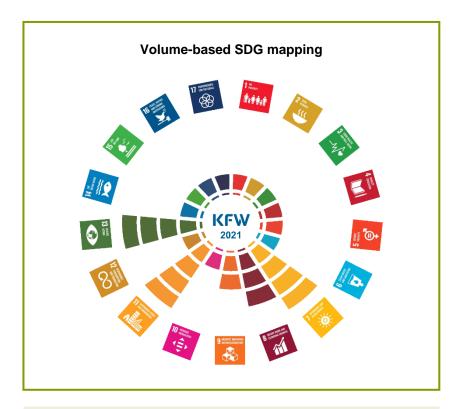
schedule

Contents

Introduction and overview of tranSForm project 2 KfW's sustainable finance strategy Managing impacts 2.1 Promoting compatibility with Paris targets 2.2 2.3 Managing ESG risks with foresight 2.4 Reporting financial sustainability data 3 Summary and contact

Supporting transformation means managing impacts

From a volume-based to an impact-driven perspective



- Since 2019, an innovative SDG mapping process has been established that is used to plot out Group-wide financing activities contributing towards the SDGs.
- In 2021, KfW's financing activities made particularly strong contributions towards SDG 8 (decent work and economic growth), SDG 13 (climate action) and SDG 7 (affordable and clean energy).



- Group-wide impact management is being instituted as part of the transform project
- In future, this is intended to measure and render transparent the impacts of all financing activities. The impact data can be used as a basis for management

Overview of group-wide impact management

Group-wide guiding principles, indicators and reporting

- The starting point is a group-wide "Theory of Change" as well as business area (BA)-specific monitoring systems
- Group-wide guiding principles as a consistent framework for impact management
- Group-wide indicators will show the real-world economic, environmental and social impacts of KfW financing activities
 - Examples of indicators: "number of people reached with improved educational measures", "forest area created/preserved"
- Gradual integration into KfW's internal and external reports to move towards aggregated reporting of results



Overarching goals of KfW's impact management



KfW sets standards for the disclosure of SDG contributions and the impacts of their financing



Impact management expands the range of management options that can provide impetus



Enables comprehensive customer and partner dialogue



Further improvement towards comprehensive data management



KfW-wide impact management – step by step

From technical concept to data collection & evaluation

KfW-wide "Theory of Change"

- KfW's perspective on impacts, referred to as "Theory of Change" (ToC), provides the foundation for impact management throughout KfW.
- This was created together with all business areas and is based on business sector-specific ToCs.



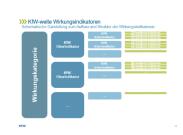
KfW-wide impact categories

Based on the KfW-wide "Theory of Change", around 20 areas of impact were drawn up at outcome/impact level



KfW-wide impact indicators

The impact categories were backed up with a first, nonexhaustive set of indicators in the three sustainability dimensions (environmental, economic, social)



KfW-wide impact assessment

The methodology enables business sector-specific indicators to be aggregated and presented in a KfW-wide impact assessment



Business area-specific data collection – a consolidated data repository

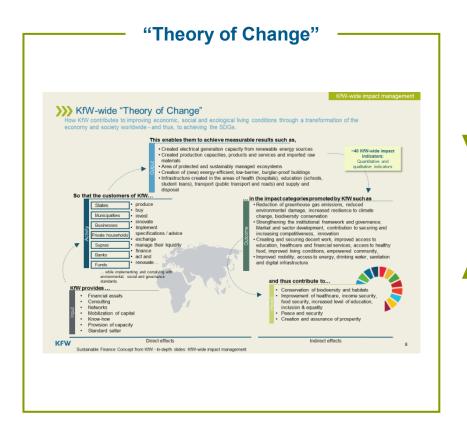
Details on the methodology and group-wide guiding principles for impact management can be found in the "KfW-wide impact management" method paper at www.kfw.de/impact

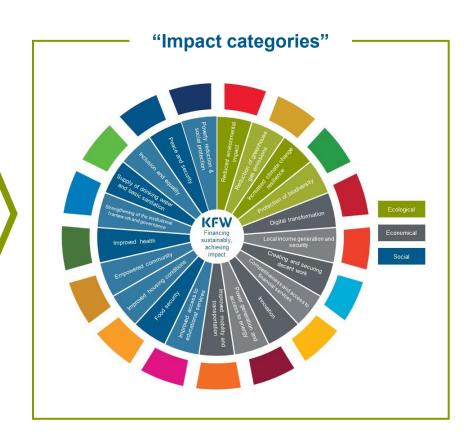




From Theory of Change to impact categories

Setting around 20 group-wide impact areas

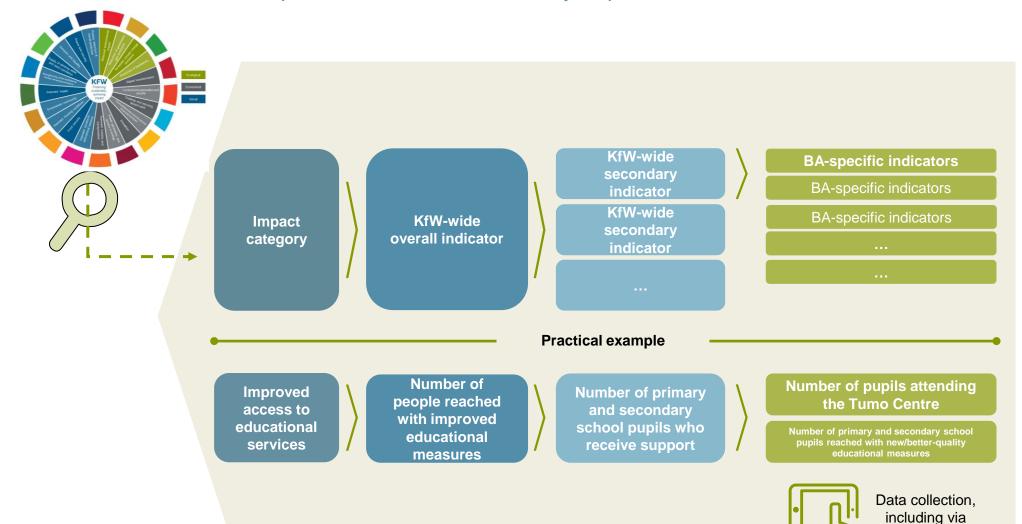




KfW's understanding of its impact on sustainable development is derived from a theoretical impact model called "Theory of Change" (ToC). The basic idea of a ToC is to present the process of an intervention – from the funds deployed to the intended change – and to create corresponding impact areas and indicators from this.

From impact categories to measurable indicators

Around 50 KfW-wide impact indicators are currently in place



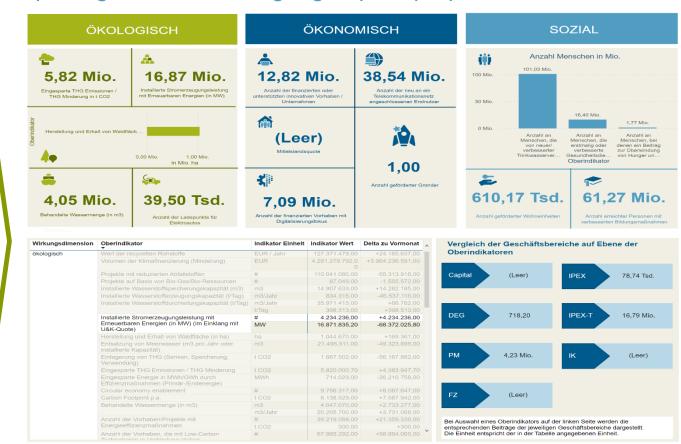
newly developed app

KfW-wide impact assessment

Different forms of reporting for different target groups & purposes



Impact assessment



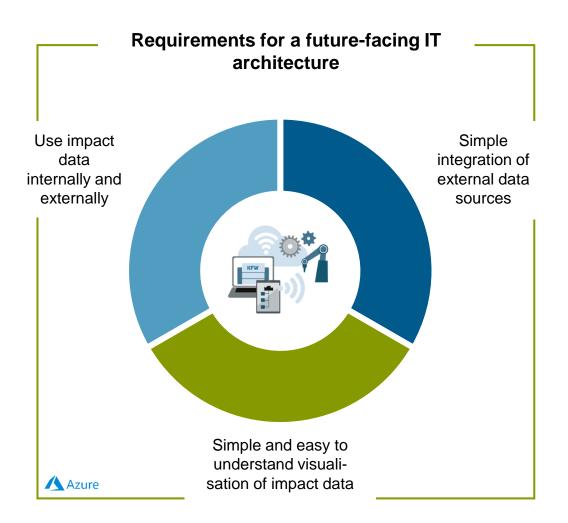
Outlook

- Gradual expansion and further development of indicator set
- Aim/vision: have impact assessment automatically generated by linking existing data and collecting new data
- Initial internal reporting in 2023, with external reporting building on this in the future
 - Strengthening dialogue and awareness on sustainability issues with customers, partners and investors



No impact management without data

Development of the digital process route from data collection to reporting



- In future, impact management should be able to be used both internally and externally (by customers, business partners, etc.)
- The data is based on both internal and targets as well as external sources
- Possibility of flexibly expanding the architecture in the event of new requirements
- Cloud as the key to digital end-to-end transformation

Contents

Introduction and overview of tranSForm project 2 KfW's sustainable finance strategy 2.1 Managing impacts Promoting compatibility with Paris targets 2.2 2.3 Managing ESG risks with foresight 2.4 Reporting financial sustainability data 3 Summary and contact

Overview of compatibility with Paris targets

Moving new business towards a GHG-neutral portfolio

- Working to keep new business in line with the goals of the Paris Climate Accords Group-wide
- Ensuring compatibility with Paris targets by gradually raising the technological requirements in GHG-intensive sectors
- Sector guidelines specifying minimum requirements for the climate-friendliness of financed technologies; considering technological lock-in periods during financing activities
- GHG accounting to monitor the effectiveness of sector guidelines and create transparency with regard to GHG footprint

Goals: compatibility of KfW's financing activities with Paris targets

Managemen

Based on sector guidelines compatible with the Paris targets, KfW is managing its transformative contribution towards a GHG-neutral future. For this purpose, specific requirements for GHG-intensive sectors were set on a scientific basis from established climate scenarios, which indicate increasing levels of ambition

Senefits

Continuous: With the introduction of sector management, KfW will ensure compatibility with the Paris targets in each year's new business, so sees itself as "aligned with the Paris goals"

Long-term: KfW will achieve a GHGneutral portfolio in the first half of the century through new business compatible with the Paris targets plus financing sinks and sequestration systems in the future

Overarching goals of compatibility with Paris targets



KfW support for transformation towards GHG neutrality and achievement of a GHG-neutral portfolio in the first half of the century



Systematic investment in the opportunities presented by transformative technologies: promotion of GHG-neutral technologies and business models as part of market penetration efforts (e.g. green hydrogen)



Shaping transition for non-GHG-neutral (transitional) technologies, supporting GHG reductions (e.g. Efficiency House 40 standard, gas-fired power plants) and avoiding lock-ins

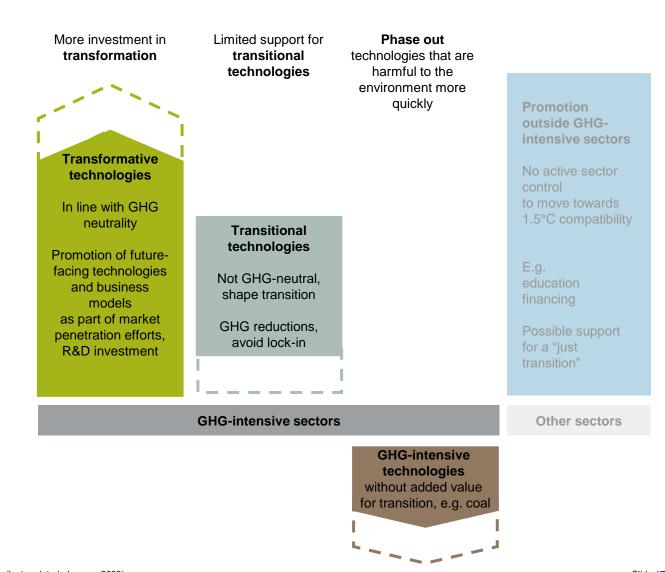


Gradually phasing out GHG-intensive technologies without added value for transition (e.g. coal) and continuing promotion outside GHG-intensive sectors (e.g. education financing)

Successfully shaping transformation

Alignment with 1.5°C target increases ambition level in terms of technology and timing

- Science-based approach. In particular, derivation from the "Net Zero by 2050" scenario
- Focus will be placed on new commitments in greenhouse gasintensive sectors
- The wide-ranging statutory KfW mandate will continue to be guaranteed



Science-based approach

From Paris Climate Accords to sector management compatible with Paris targets

The Paris Agreement calls for efforts to limit the temperature rise to 1.5°C

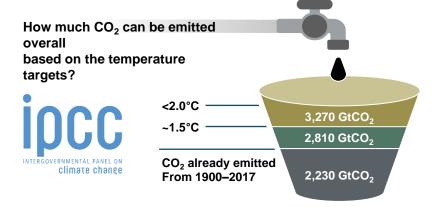
Political choices: Commitment of the German Federal Government to the Paris targets, which includes the further development of KfW as the digital transformation and promotional bank



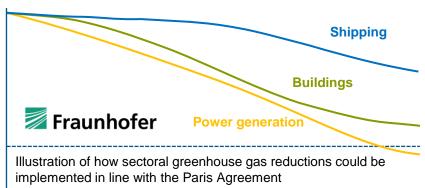
United NationsFramework Convention on Climate Change



Scientists translate temperature targets into CO₂budgets and paths for reduction

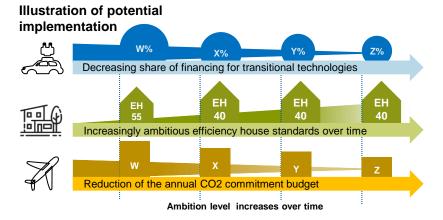


3 KfW uses climate scenarios of the International Energy Agency (IEA) to formulate responses for individual GHG-intensive sectors



Sectoral trend lines fall over time

KfW implements the requirements deduced by issuing sector guidelines that are compatible with the Paris targets





100%

80%

60%

40%

20%

0%

-20%

Overview of implemented & planned sector guidelines

Sector guidelines for carbon-intensive sectors

	Sector	Scope of application	Type of intervention	Implementation based on 1.5°C ambition level	
	Shipping	Commercial oceangoing/coastal vessels for the transport of people and goods	New commitments with an efficiency threshold plus control based on real emission data	January 2023 🎺	•
	Automotive	Passenger car/light commercial vehicles (<3.5t), their suppliers and infrastructure	New commitments with technology limitations	January 2023 🎺	
	Steel	Iron and steel manufacture	New commitments with technology limitations and efficiency thresholds	January 2023 🎺	
	Power generation	Power generation facilities feeding into public grids	New commitments with technology limitations	January 2023 🎺	
AIO	Buildings	Residential and non-residential buildings with KfW efficiency standards and building energy efficiency measures	New commitments with technology limitations and efficiency thresholds	January 2023 🎺	
X	Aviation	Commercial aircraft for passenger and freight transport	GHG budget for new commitments	January 2023 🎺	
Nø	Oil & natural gas	Distribution/transport, refining, processing, trade in oil and natural gas	New commitments with technology limitations	Scheduled	

- Initial introduction of sector guidelines in 2021 based on 1.65°C climate target. From 2023, improvement in terms of climate protection through orientation toward the 1.5°C target.
- Regular review to ensure up-todateness, plus climatepolicy course setting (e.g. German Federal Government, security of supply)
 - More information: <u>kfw.de/sektorleitlinien</u>

Overview of customer impact

Primary focus on **GHG-intensive sectors**→ **gradual increase** in quotas and technological requirements rather than a "big bang"

Financing mix of transitional and future technologies to successfully shape the transformation towards greenhouse gas neutrality

Mandatory minimum requirements for new loan business in the above-mentioned sectors; gradual conversion of domestic promotional programmes to compatibility with Paris targets



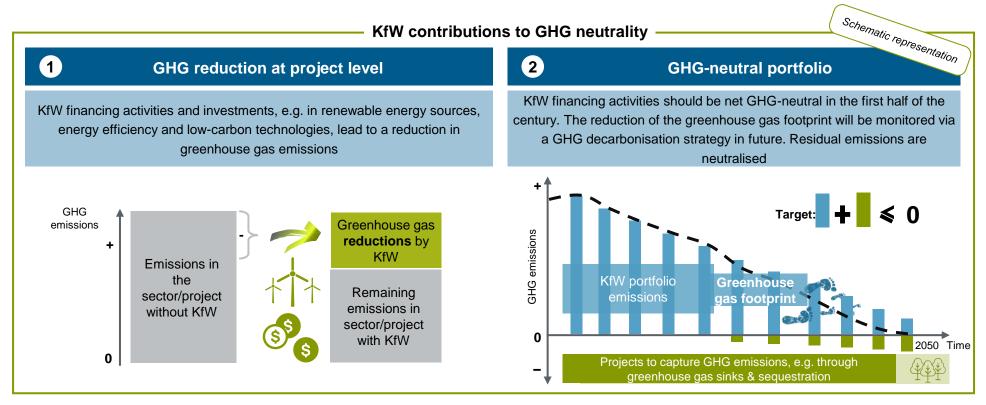
Overview of greenhouse gas accounting

Group-wide GHG accounting to monitor KfW's contributions to GHG neutrality

Introduction of group-wide greenhouse gas accounting, consisting of

- greenhouse gas footprint
- > greenhouse gas reductions
- greenhouse gas sinks and sequestration for KfW's financing activities

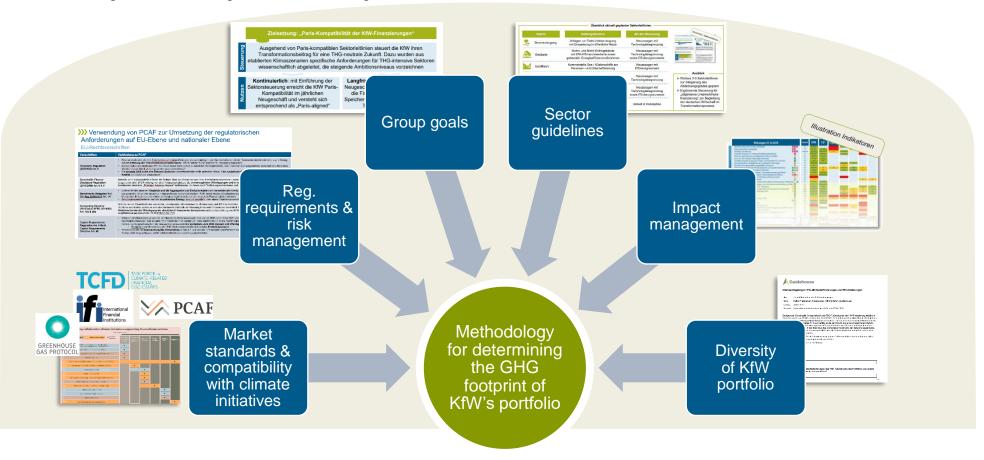
This should provide a key tool for **making progress towards a greenhouse gas-neutral portfolio** in a verifiably transparent manner and monitoring the contribution of KfW's financing activities towards the Paris Agreement



Establishment of a KfW-wide GHG accounting process

Developing a uniform group-wide methodology for systematically determining the GHG footprint

- > To determine the Group-wide portfolio GHG footprint, GHG footprints are to be collected at the individual financing level
- > As a basis for this, work is currently being carried out on a **uniform method of calculating** the GHG footprint of the financing activities, taking various influencing factors into account



Contents

Introduction and overview of tranSForm project 2 KfW's sustainable finance strategy 2.1 Managing impacts 2.2 Promoting compatibility with Paris targets 2.3 Managing ESG risks with foresight 2.4 Reporting financial sustainability data 3 Summary and contact

Overview of ESG risk management

Managing ESG risks in the KfW portfolio with foresight

- Strengthening ESG risk management is an important part of KfW's sustainable finance concept
- Environmental, social and governance risks **do not represent types of risk** (such as credit, market price or operational risks), but rather act as **drivers** for existing types of risk, in particular on credit and investment risks
- > ESG risk management: KfW's (risk) positions affected by ESG risks
- Consideration of the "outside-in" view ("save the bank")

Overall goals of ESG risk management



Dovetailing of business and risk strategy



Development of overall ESG management concept



ESG risk profile: Tool for identifying ESG risks



ESG stress testing: Further development for evaluation of ESG risks



And more besides...

ESG risk management in KfW's sustainability concept

Management of impacts of financing and ESG risks – explanation of terms

Save the world: inside-out

Key question: How does my loan or investment affect the outside world?

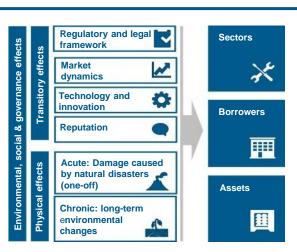
For example: A project funded by us improves the drinking water supply for a group of people and has a beneficial impact on their living conditions

Save the bank: outside-in

Key question: How does the outside world affect my loan or investment?

For example: Loan to a hotel on a beach in the Maldives, rising sea level due to climate change (physical climate risk), hotel will most likely be washed away, loan will no longer be repayable



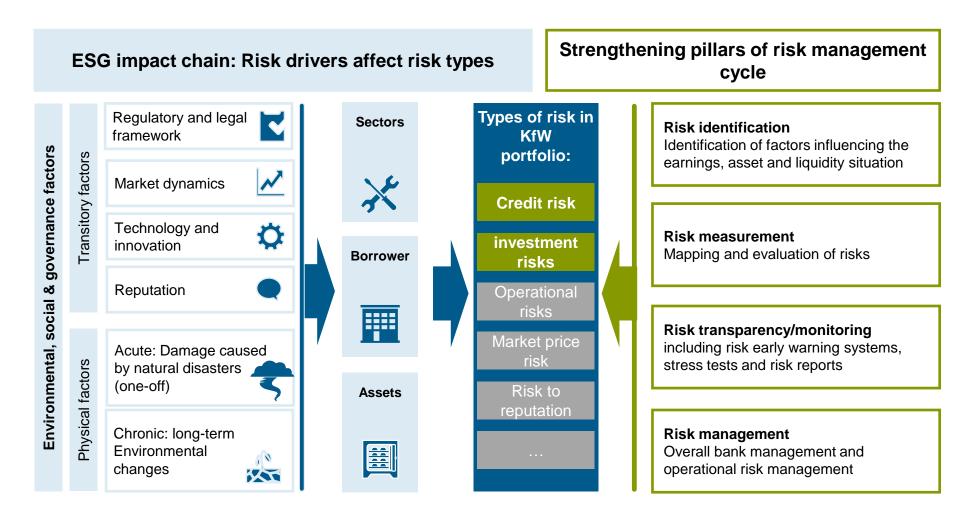


Managing business and achieving impacts in the three dimensions of sustainability

Anticipating ESG risks

Overview of basic mechanisms of ESG risks

Sustainability transformation & regulatory law require ESG risk management to be strengthened



Breakdown of E, S and G dimensions into categories

The categories are in turn divided into further factors

(E)nvironment Physical climate risks (e.g. flooding) Transitory climate risks (e.g. increase in CO2 price) Water (e.g. access to water, water scarcity) Etc.





NB: These are merely listed as examples. The E, S and G dimensions and can also be subdivided differently depending on the application (customer, borrower, industry, etc.).

ESG risk profile

Operating between ESG risks and established risk management

1. ESG factors

Selection of key factors

2. Credit risk

Factors can exert a credit risk on industries/customers

3. ESG risk profile

In the ESG risk profile, each customer is assessed with regard to their potential credit risks. All evaluations are stored in an application.

4. Reuse in other risk instruments

The ESG risk profile offers its information to other risk instruments (stress testing, reporting, etc.). They use the information for their purposes (analysis, transparency, management, etc.)



Targets for KfW's ESG stress testing

ESG stress testing is an important foundation for ESG risk management

ESG stress tests help to secure KfW's yield, solvency and risk-bearing capacity by identifying and assessing material ESG risks for KfW in good time, in turn making it possible to promptly formulate action plans. This takes into account both KfW's and the ESG risks' specific features.

Stress test scope

- Multiple ESG stress tests each year
- Priority focus: environmental/climate risks(E)

Processes/documentation

 Integration into KfW's existing stress testing programme

Stress test design

- As a result of the specific features (see below), use of a wide range of instruments
- Use of ESG risk profile (scheduled as part of the tranSForm project)

Governance/reporting

 Reporting is generally carried out in the existing committees on established reporting formats

Key challenges and special features

- KfW business model and overall risk profile:
 - In particular: credit risks from long-term financing
 - Concentration on domestic banking risks
 - At the same time, a portfolio distributed globally across around 140 countries
- ESG risks:
 - Often weak data, major uncertainties as far as susceptibility and adaptability of borrowers are concerned
 - Long time-frames that make scenario considerations yet more uncertain
 - Complex economic, political and technological situations around the world

Key ESG risks for stress testing

Up-to-date overview and establishing relevance for KfW

	Relevance ESG risks	External (focus on supervision)	Internal (relevance for KfW portfolio)
Γ	CO2 price (increase)	In climate stress tests by the ECB and some national supervisory authorities, the	Material commitment to CO2-intensive industries (see also results of the climate stress test).
 	Change in consumer demand	CO2 price and change in demand are key risk drivers	Shifting demand for more sustainable products can affect the creditworthiness of KfW borrowers.
	Heavy rain/ flooding	The supervisory authorities' physical stress tests regard flooding and drought	A large part of KfW's portfolio is located in Germany and neighbouring countries. The portfolio is also strongly diversified in a global sense with exposure in around 140 countries, so it has the potential to be affected.
L	Drought	as the most pertinent climate events in Europe.	
S	Social unrest (e.g. as a result of climate events)	Little/no scenarios on S and G, but supervision expects institutions to address the issues.	The S risk is covered by the social unrest factor. The focus is on the countries in the Global South (in particular Africa, South America).
G	Compliance violations by borrowers		The issue of governance and compliance violations is particularly important for KfW in view of the bank's involvement.

As part of the tranSForm project, work is under way to establish stress-testing capabilities for the material ESG risks so that these can be taken into account in the stress-testing programme in the coming years.

Contents

Introduction and overview of tranSForm project 2 KfW's sustainable finance strategy 2.1 Managing impacts 2.2 Promoting compatibility with Paris targets 2.3 Managing ESG risks with foresight 2.4 Reporting financial sustainability data 3 Summary and contact

Overview: reporting financial sustainability data

Identify, assess and act on new regulatory developments at an early stage

- Regulatory requirements and expectations regarding transparency and quality within the context of sustainable economic and financing activities are growing
- In the **EU in particular, regulatory requirements** are increasing with regard to the scope, depth and quality of sustainability data to be reported, as well as to the scope of application and the reporting framework
- > The main pillars of regulatory sustainability reporting in the tranSForm project are:
 - EU taxonomy: uniform classification system for environmentally sustainable economic activities
 - Certain requirements for non-financial sustainability reporting (currently NFRD; CSRD/EFRAG and ISSB in future)
 - Expansion of EBA pillar III disclosure requirements for ESG risks (in accordance with Article 449a CRR; IPEX only)

Overarching objectives of financial sustainability reporting



Picking up on new regulatory developments at an early stage and preparing KfW Group for the challenging ESG reporting requirements and merging them in a reporting format (in future as part of the management report)



Contribution to strengthening transparency regarding sustainable economic and financing activities in the context of regulatory ESG reporting



Consideration of regulatory requirements as well as the information needs of our investors and the expectations of our stakeholders

Overview: reporting financial sustainability data

Preparing KfW for regulatory transparency requirements

Current status

- Start of the first Group-wide survey of the in some cases estimated EU taxonomy metrics in 2021 ("taxonomy eligibility")
- IPEX-Bank reported on the mandatory taxonomy key figures for the 2021 financial year
- Continuous analysis and evaluation of the impact of ever-increasing regulatory ESG reporting requirements on KfW Group and its subsidiaries
- Implementation requirements for KfW's forthcoming sustainability data budget will be successively developed and set out

Current challenges

- Methodological hurdles in the implementation of the EU taxonomy for an internationally active promotional bank such as KfW → incomplete mapping of sustainability impacts of KfW financing via taxonomy indicators
- Scope of application of sustainability regulations in some cases are still unclear
- High level of regulatory dynamics with ambitious application times
- No established market standard available for guidance; scope for technical interpretation; lack of ESG data; external tools not tested → high flexibility in the creation and potential adaptation of in-house solutions required; resource requirements difficult to define



Outlook



- KfW remains committed to improving the informative value of regulatory key figures for our business, and continues to prepare for even more transparent sustainability reporting in the future by gradually defining and implementing regulatory ESG reporting
- Promotional programmes based on EU taxonomy (e.g. sustainable transport, climate action campaign for SMEs)



Contents

Introduction and overview of tranSForm project 2 KfW's sustainable finance strategy 2.1 Managing impacts 2.2 Promoting compatibility with Paris targets 2.3 Managing ESG risks with foresight 2.4 Reporting financial sustainability data 3 Summary and contact

With the sustainable finance strategy, the German Federal Government is positioning KfW as a transformative promotional bank that...



promotes ecologically, economically and socially sustainable solutions, focuses on the corresponding impacts and thus effectively fulfils its broad funding mandate,



actively accompanies the economic sectors and the financial market on the way to a greenhouse gas-neutral future and systematically ensures the Paris compatibility of their financing,



takes growing regulatory requirements into account and manages its ESG risks with foresight, and



acts as a competent partner for policymakers and the financial sector, and actively contributes as an opinion leader and co-designer of sustainable finance.



Further information regarding sustainable finance at KfW

Contacts



Sandra Lutz

Project Manager tranSForm T +49 69 7431 9681 Sandra.Lutz@kfw.de

KfW Bankengruppe Palmengartenstrasse 5-9 60325 Frankfurt am Main Germany





Dr. Karl Ludwig Brockmann

Group Sustainability Officer T +49 69 7431 3771 Karl-Ludwig.Brockmann@kfw.de

KfW Bankengruppe Palmengartenstrasse 5-9 60325 Frankfurt am Main Germany



P. 1: Espen Eichhöfen, Bärbel Högner, Jonas Wresch

P. 8: Charlie Fawell, auslöser-photographie

