Climcycle
the ESG Software Suite

CAREC Chai event

May 23, 2024

01

Global and EU Regulations

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Organizations & Governments - set goals and frameworks for sustainable development

Significant global treaties and agreements

UN Agenda 2030 (SDG) & Paris Agreement on Sustainable Development and Climate Change

- **Equal consideration of** the three sustainability dimensions

Economy	Social affairs	Ecology

— **Holistic development approach**

— Respect for human rights, **the rule of law, good governance, peace and security**

— In addition to the 193 UN member states, many companies are also committed to tackling all or many of the **SDGs** and are setting themselves **ambitious targets**

Obligations within the EU

The EU is committed to meeting at least the following **climate and energy targets for 2030:**

Reduction of greenhouse gas emissions by >55%[1] (compared to 1990)

Increase the proportion of energy from renewable sources to at least 32%.

Increase in energy efficiency by at least 32.5

— **EU Green Deal:** The **EU should** be **completely climate-neutral** by **2050**

— EU participation in the additional **investment requirement** of **EUR 180 billion** per year to achieve the **2030 climate targets** → **EU action plan for sustainable finance**

— **EU taxonomy for "green" activities** → **Classification tool** for the **redirection of capital flows** required for the implementation of the EU Green Deal
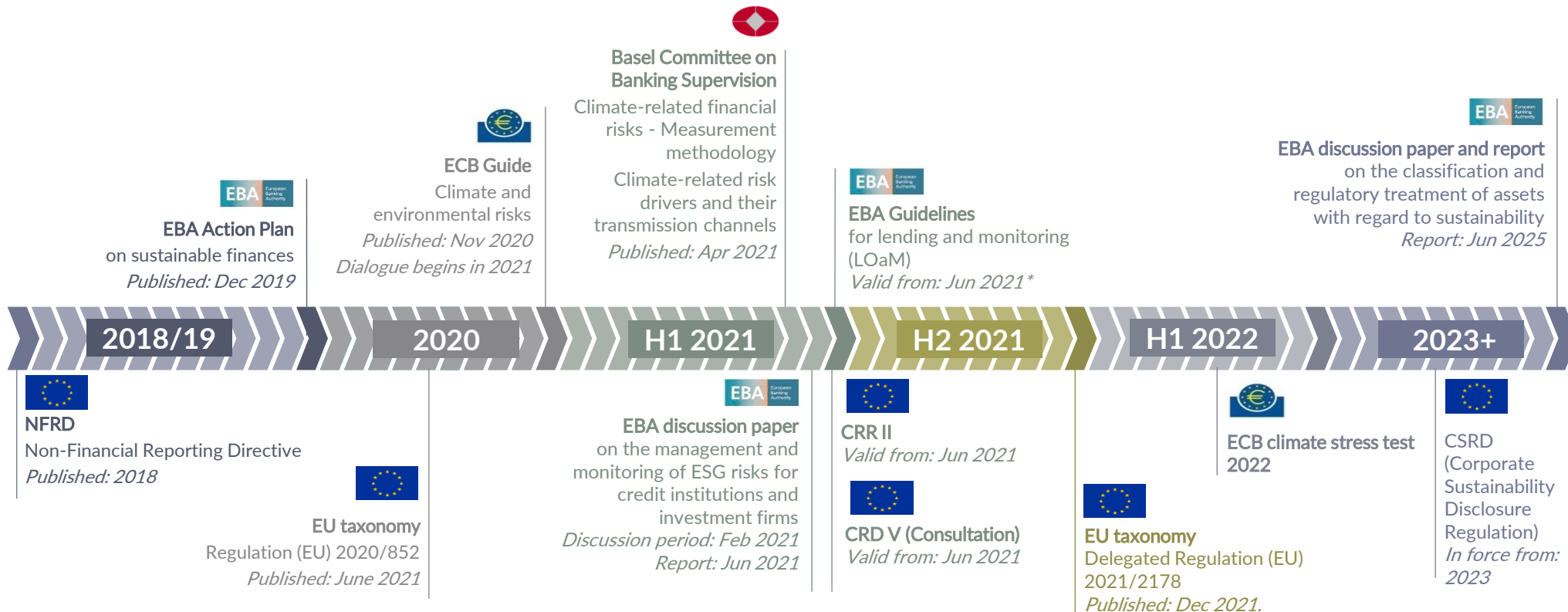
1 With the European Climate Law, the target for reducing greenhouse gases was adjusted from at least 40% to 55%.
Source: Websites of the European Commission & EBA, UN, Austrian Federal Ministry of Agriculture, Regions and Tourism.

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Sustainability in the context of EU policy

Recent milestones in EU policy

March 2018	December 2019	June 2020
EU Sustainable Finance Action Plan	**European Green Deal**	**EU taxonomy**
EU Commission presents a **action plan for financing sustainable growth -** the most urgent measure is the definition of a taxonomy for environmental sustainability	Ursula von der Leyen presents the **"European Green Deal"** and calls the sustainable transformation of the EU **"Europe's man on the moon moment"**	EU Parliament and European Council agree on a **classification system for the environmental sustainability** of economic activities
Effective, sustainable Capital allocation	**Climate neutrality of the EU by 2050**	**Uniform understanding of "green" activities**

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New regulation for ESG in the EU

Basel Committee on Banking Supervision

Climate-related financial risks - Measurement methodology
Climate-related risk drivers and their transmission channels
Published: Apr 2021

EBA discussion paper and report
on the classification and regulatory treatment of assets with regard to sustainability
Report: Jun 2025

ECB Guide
Climate and environmental risks
Published: Nov 2020
Dialogue begins in 2021

EBA Guidelines
for lending and monitoring (LOaM)
Valid from: Jun 2021*

EBA Action Plan
on sustainable finances
Published: Dec 2019

2018/19	2020	H1 2021	H2 2021	H1 2022	2023+

NFRD
Non-Financial Reporting Directive
Published: 2018

EBA discussion paper
on the management and monitoring of ESG risks for credit institutions and investment firms
Discussion period: Feb 2021
Report: Jun 2021

CRR II
Valid from: Jun 2021

CRD V (Consultation)
Valid from: Jun 2021

ECB climate stress test 2022

CSRD
(Corporate Sustainability Disclosure Regulation)
In force from: 2023

EU taxonomy
Regulation (EU) 2020/852
Published: June 2021

EU taxonomy
Delegated Regulation (EU) 2021/2178
Published: Dec 2021.

The ESG requirements imply 4 key challenges

EU Taxonomy Regulation

EBA Guide LOaM

Pillar III ESG

ESG stress test

Associated topics:

ESG risk management

EU taxonomy assessment

ESG reporting

CO2 accounting

FMA Guideline Dealing with sustainability risks

ECB Guide to environmental and climate risks

Internal Control

CO2 accounting

02

Climcycle

Climcycle introduction

Executive Summary

Climcycle
Key Facts

- ↻ Software as a service
- ↻ **API** ready
- ↻ **Regulatory Safe**
- ↻ **Connectable to all systems**
- ↻ Continuous **further development**
- ↻ Modular application
- ↻ **Integrated database and data storage**
- ↻ **Integrated data management**
- ↻ **BCBS 239 ready**

Actively used in 6 countries

KPMG's expertise and the flexibility of a fintech

Regulatory safe for all ESG requirements

Relevant for **financial institutions, industry and asset managers**

Applicable to all **regions** and industries worldwide

Continuous **development** and updating

Adaptable to **individual customer requirements**

ISO/IEC 27001 certified

100% data security in accordance with data encryption guidelines

9 Modules for all ESG requirements!

ESG risk scoring

ESG risk scoring for each transaction based on flexible input data. The ESG risk score includes E, S and G factors. All types of transactions and clients can be assessed.

Physical climate risks

Identification of physical climate risks and projection of risks using RCP scenarios over the term of the transaction in the course of the EU taxonomy Annex A.

CO2 emissions PCAF

Calculation of the emissions caused by one or more transactions or assets using the international PCAF standard.

CSRD & ESRS

The CSRD reporting tool provides support in CSRD reporting and is based on the requirements of the ESRS. It includes the assessment of materiality and reporting in accordance with CSRD expectations.

EU taxonomy

Examination of individual economic activities or assets for their taxonomy capability and conformity. Conformity is determined in accordance with the Technical Assessment Criteria (TSC) and Minimum Safeguards (MS).
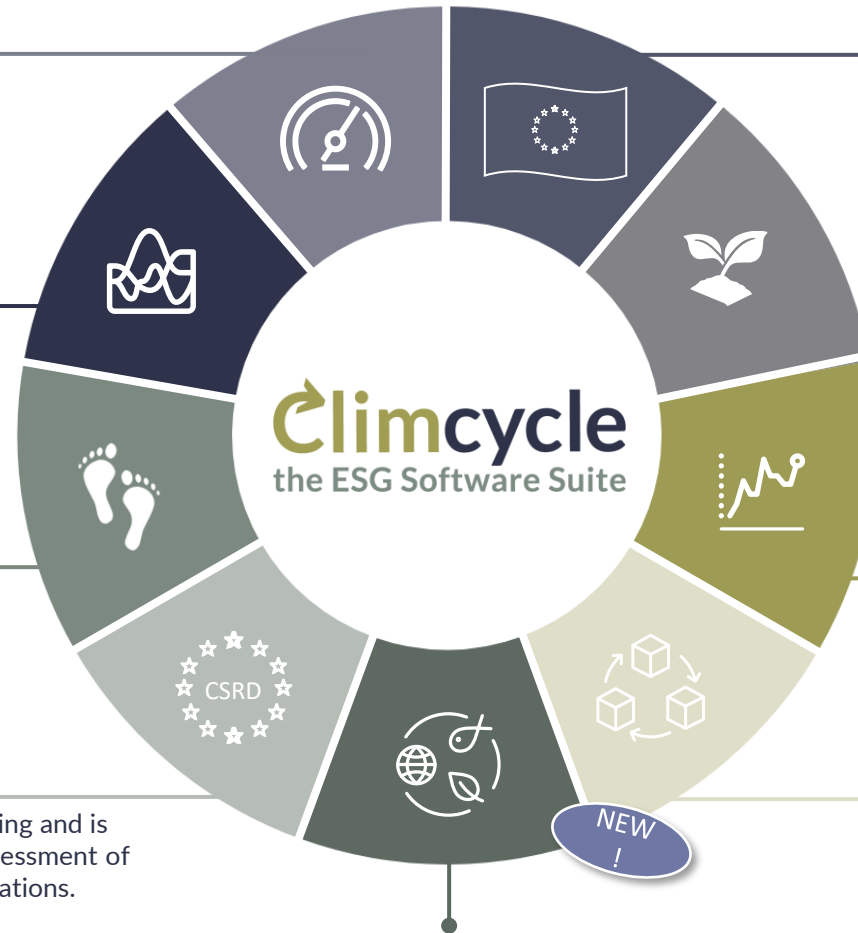
GAR & Disclosure

Calculation of Green Asset Ratios, Eligibility Ratios & automated filling of the relevant reporting forms, for easy disclosure.

ESG stress test

Calculation of financial ESG effects based on various climate change scenarios in accordance with EIOPA methodology.

CSDDD

This module supports you in complying with the EU Supply Chain Act.
Go-live: Q1 2025

Biodiversity

This module supports you in the disclosure of various biodiversity KPIs in accordance with the regulatory requirements relating to the EU taxonomy, CSRD/ESRS and risk management. Go-live: Q4 2024.

03

Climcycle appendix

Interaction of the modules

An integrated data system for all modules

All information collected as part of the lending process or the ongoing assessment of the portfolio can be used in the Climcycle modules. All data and results can be **stored** in **Climcycle. The data does not have to be entered twice! All modules in Climcycle are coordinated with each other!**

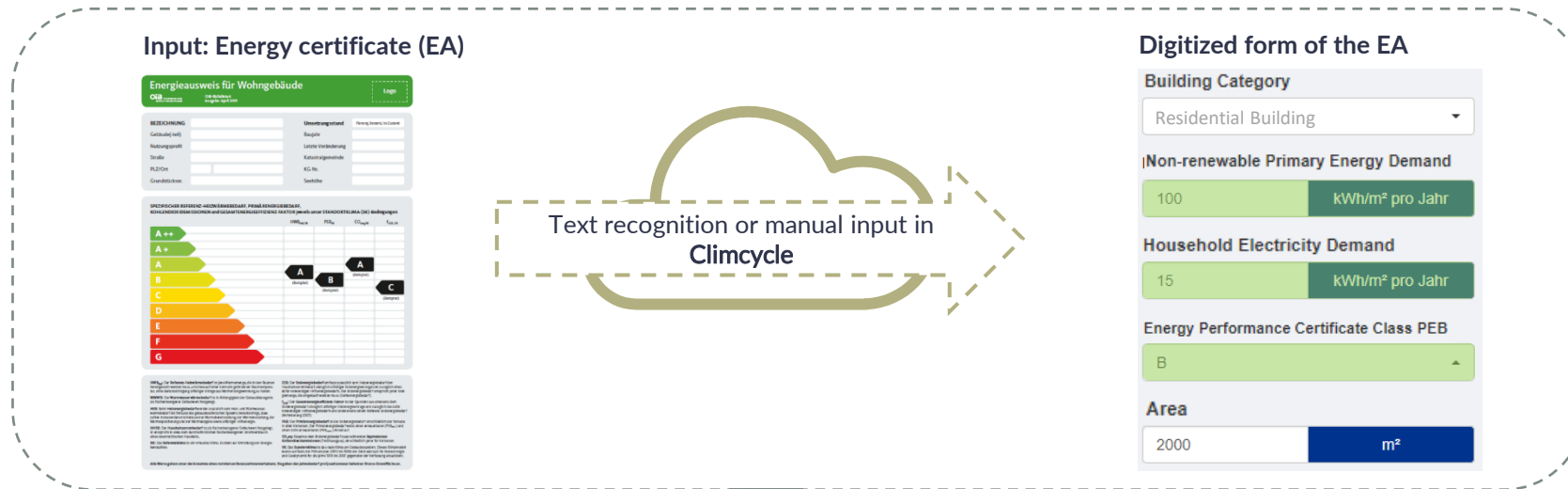| ESG risk scoring	EU taxonomy	GAR & Disclosure	ESG stress test	CO2 emissions PCAF	Physical climate risks	CSRD & ESRS	CSDDD	Biodiversity
All information is transformed into an overall ESG score. Results from the other modules are also taken into account.	The taxonomy assessment is based on data from lending as well as internal and external databases.	The various green asset ratios and associated KPIs are calculated automatically on the basis of existing data.	Based on the data collected and the results from the other modules, effects on risk parameters are calculated, including PD, LGD and ECL.	Calculation of absolute CO2 emissions and various CO2 intensities per euro exposure, using the example of a corporate loan.	Physical climate risks are calculated using different data sets and coordinates. As a result, customers receive an assessment of the most relevant climate risks.	All information from the other areas is collected in this module and evaluated in accordance with the CSRD/ESRS specifications and organized into the required structure.	In this module, all data relating to the value chain is collected and evaluated in accordance with the EU CSDDD requirements.	Biodiversity risks are analyzed on the basis of location and economic activity and assessed in accordance with the requirements of ESRS E4 and EU Taxonomy Annex D.

Climcycle the ESG Software Suite

Input: Energy certificate (EA)

Energieausweis für Wohngebäude

Text recognition or manual input in **Climcycle**

Digitized form of the EA

Building Category

Residential Building

Non-renewable Primary Energy Demand

| 100 | kWh/m² pro Jahr |

Household Electricity Demand

| 15 | kWh/m² pro Jahr |

Energy Performance Certificate Class PEB

| B |

Area

| 2000 | m² |

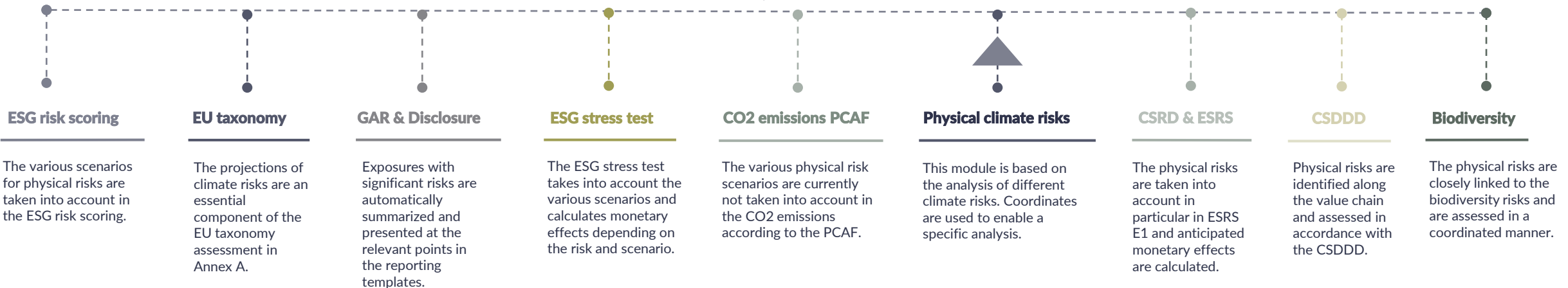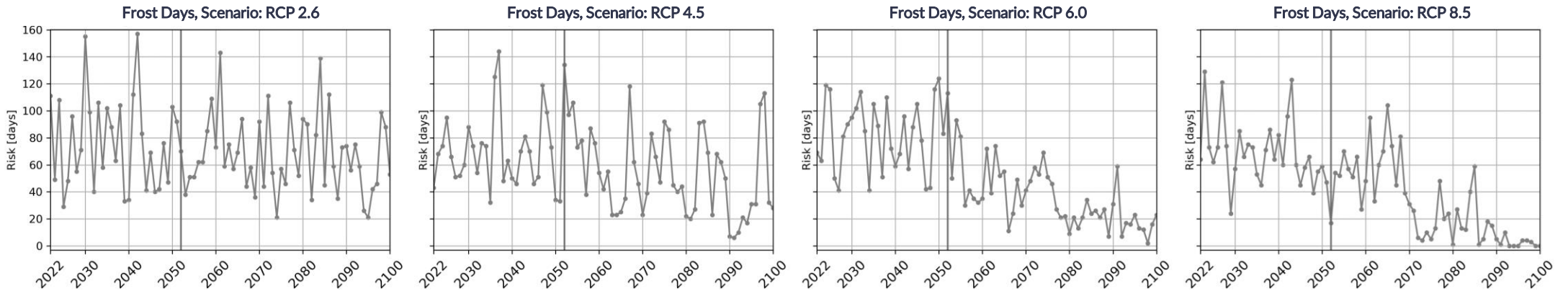| **ESG risk scoring**	**EU taxonomy**	**GAR & Disclosure**	**ESG stress test**	**CO2 emissions PCAF**	**Physical climate risks**	**CSRD & ESRS**	**CSDDD**	**Biodiversity**
Energy performance indicators refine the ESG risk score of an asset.	Key figures from the energy performance certificate are used for the EU taxonomy assessment.	Key figures from the energy performance certificate are taken into account when filling the KPIs and templates.	Key figures from the energy performance certificate are used to refine the ESG stress tests.	Key figures from the energy performance certificate are used to calculate absolute CO2 emissions and CO2 intensities.	The data from the energy certificate can be used for address identification.	Key figures of the energy performance certificate are categorized in ESRS E1-E5 as well as S1-S4 and G1.	The data from the energy certificate is not taken into account in this module.	The data from the energy certificate can be used for address identification.

Various scenarios for physical risks up to 2100 are calculated on the basis of address or geocoordinates and asset class.
The risk for "Frost Days" in Oslo (NOR) is shown here.

Frost Days, Scenario: RCP 2.6

Frost Days, Scenario: RCP 4.5

Frost Days, Scenario: RCP 6.0

Frost Days, Scenario: RCP 8.5

ESG risk scoring

The various scenarios for physical risks are taken into account in the ESG risk scoring.

EU taxonomy

The projections of climate risks are an essential component of the EU taxonomy assessment in Annex A.

GAR & Disclosure

Exposures with significant risks are automatically summarized and presented at the relevant points in the reporting templates.

ESG stress test

The ESG stress test takes into account the various scenarios and calculates monetary effects depending on the risk and scenario.

CO2 emissions PCAF

The various physical risk scenarios are currently not taken into account in the CO2 emissions according to the PCAF.

Physical climate risks

This module is based on the analysis of different climate risks. Coordinates are used to enable a specific analysis.

CSRD & ESRS

The physical risks are taken into account in particular in ESRS E1 and anticipated monetary effects are calculated.

CSDDD

Physical risks are identified along the value chain and assessed in accordance with the CSDDD.

Biodiversity

The physical risks are closely linked to the biodiversity risks and are assessed in a coordinated manner.

Use of Climcycle

Direct access to Climcycle - **including** data storage in Climcycle Cloud environment

Cloud-based application

This enables the customer to use the software directly and calculate results using various assumptions.

Five modules combined

Climcycle carries out the five modules on the basis of the data. These include the assessment of the suitability and adaptation of the EU taxonomy, the calculation of regulatory KPIs, the completion of regulatory templates, the derivation of ESG risk indicators, the calculation of ESG stress tests and the calculation of financed CO_2 emissions.
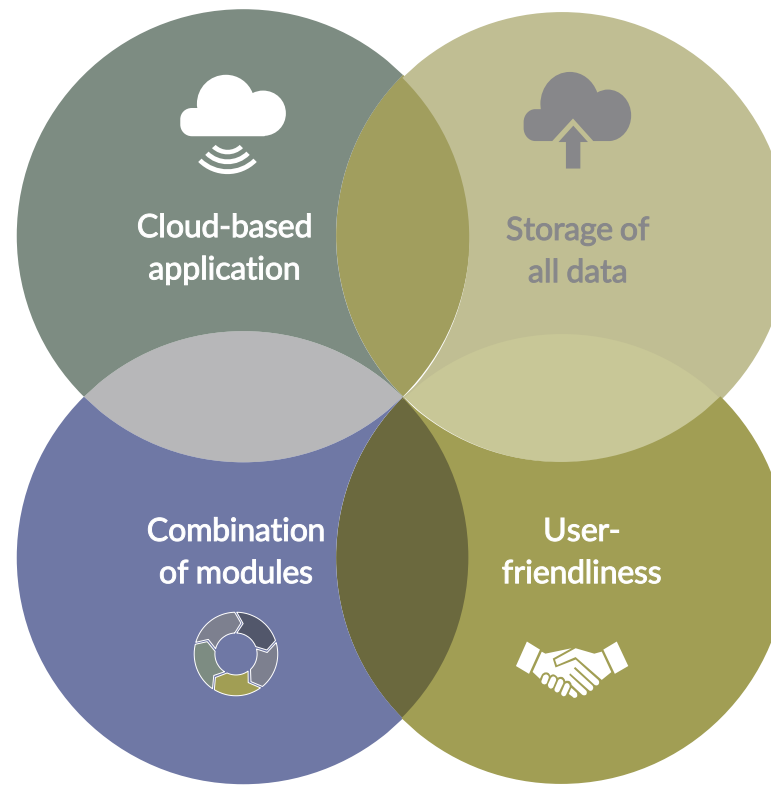
Save and reuse data

In **Climcycle**, we have integrated a system for data storage and data monitoring as well as secure geo-redundant historization of all data. This helps our users as it guarantees the use of all relevant data for all modules. This also means the greatest possible *user-friendly* interface for all users in the front and back office.

Integrated storage and monitoring

With direct access including data storage, we offer our customers the possibility to perform all analyses completely independently and to store all input data, results, partial results and metadata directly in the Climcycle cloud environment.

Cloud-based application

Storage of all data

Combination of modules

User-friendliness

14

Backup & Encryption Standards

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the ESG Software Suite

Backup Policy

- SaaS solution via Microsoft Azure Cloud incl. data backup and recovery procedures within the Climcycle ESG platform

Encryption Policy

- 100% compliant process in accordance with data encryption guidelines
- Permanent storage of the calculated ESG data
- For batch uploads: ESG data automatically deleted after 24 hours

Data backup

- Data encryption within the Climcycle ESG platform + Data storage and backup via Microsoft Azure
- Geo-redundant backup storage within the EU
- Free backup creation on customer request (via Climcycle Service Desk)

Permanent data storage

- Data is stored in the Microsoft Azure SQL database + encrypted in real time at file level
- Database backup via symmetric encryption DEK

Intermediate storage of data

- Cache space in Microsoft Azure Blob Storage (CSV file) using AES-256 encryption standard

Transfer of data

- Data traffic management via Microsoft Azure Application Gateway incl. SSL/TLS end-to-end encryption

Annual Penetration tests

ISO/IEC 27001 certified

Advantages of Climcycle

Climcycle
the ESG Software Suite

- ✓ Climcycle is the **only all-in-one** ESG **solution for financial institutions**

- ✓ All Climcycle modules are **regulatory-safe and are audited by KPMG.**

- ✓ Climcycle is constantly being developed and adapted to the latest regulatory requirements and market developments. **There are no development costs** for the customer.

- ✓ **Data collection and data management are** fully integrated in Climcycle.

- ✓ Climcycle is **much more cost-efficient than individual solutions.**

- ✓ Climcycle has been used by numerous customers since 2021, including customers such as KfW Bankengruppe, Raiffeisen and Allianz.

Contact us

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