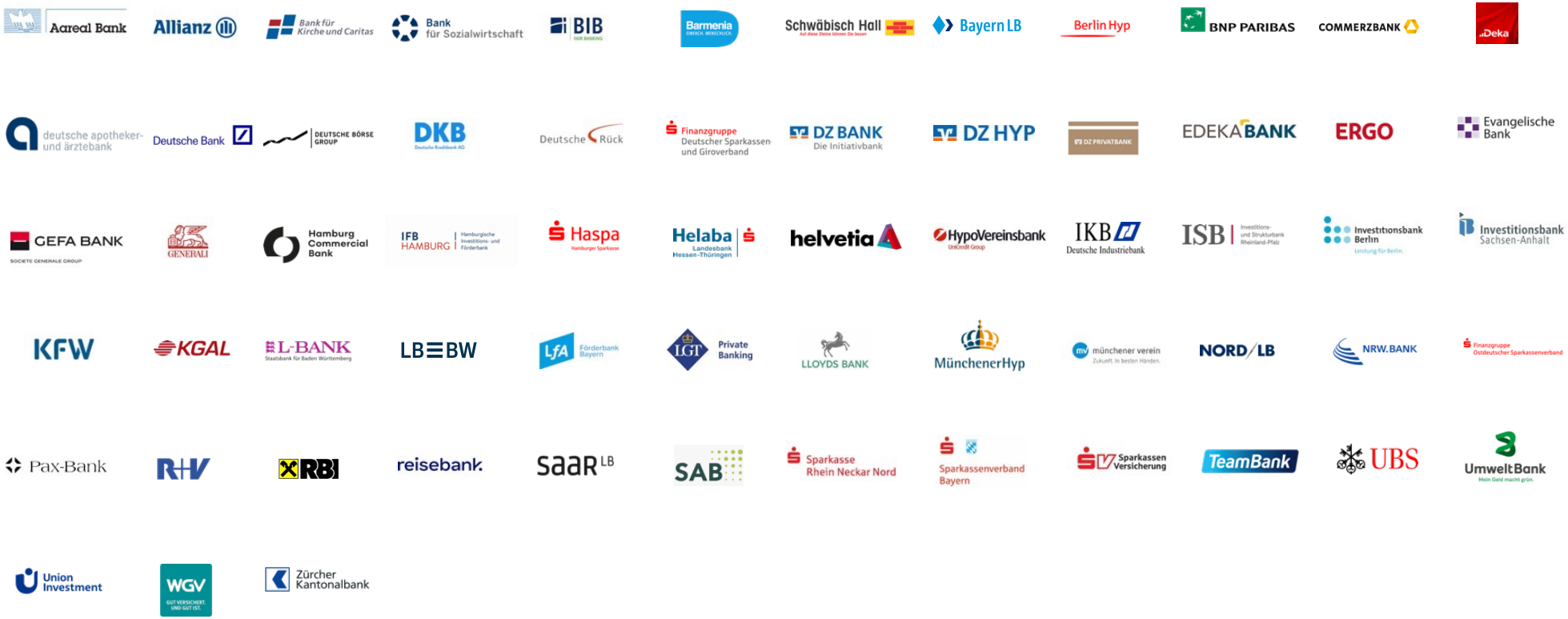

CLARITY AI
VÖB
How to Navigate the Growing Interest in Biodiversity-themed Funds: Practical Insights to Measure Risk and Impact
28.09.2023 I Sustainable Finance Toolbox Webinarreihe

Netzwerk von Sustainable Finance Professionals



Kernleistungen des VfU

Im Überblick:

Informationen:
Mediathek

Austausch unter Peers:
Foren

Wissenstransfer & Schulungen:
Veranstaltungen

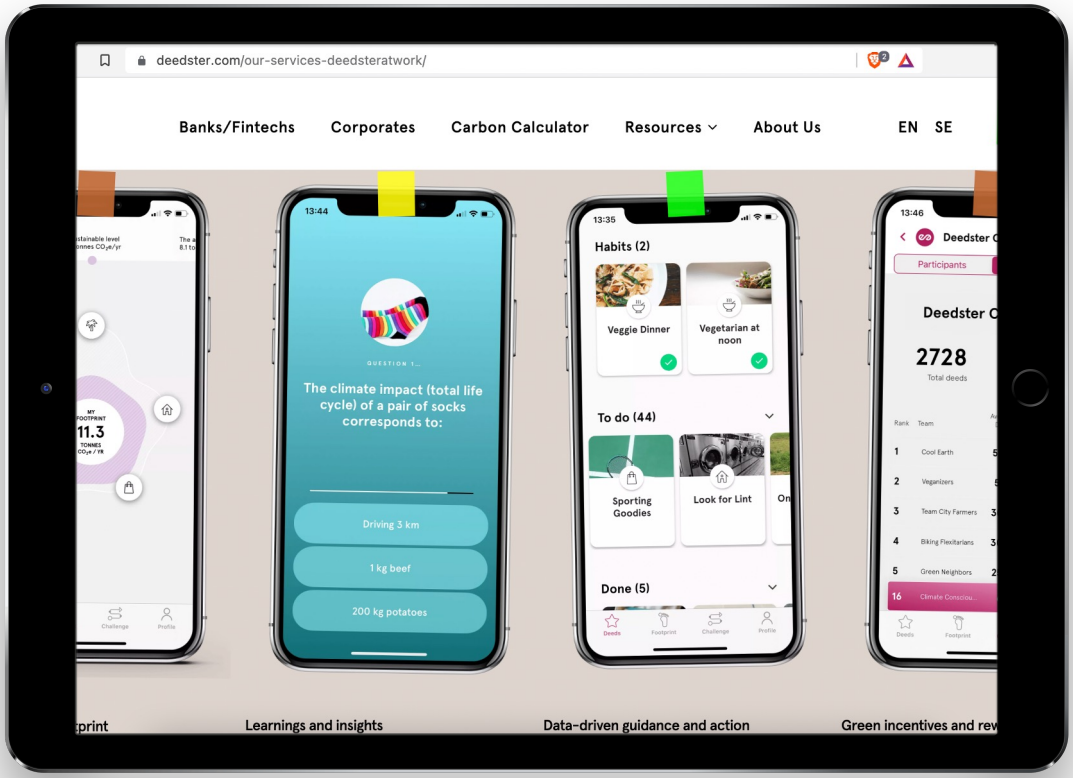
Neues Wissen:
Forschungsprojekte

+ Unsere Angebote nutzen



Über die VfU Webinarreihe: Sustainable Finance Toolbox

- Monatliches Angebot **für Finanzinstitute/Nichtfinanzinstitute** seit Ende 2020.
- Ziel der Veranstaltung: Vorstellung von Start-ups, Projekten oder etablierten Unternehmen mit spannenden innovativen Produkten/Dienstleistungen, die einen positiven Beitrag zur Transformation des Finanzsektors leisten.
- Themenschwerpunkte: **Carbon Footprint, ESG Intelligence, Klimabildung, Lieferketten, nachhaltiges Investieren**, etc.
- Referenten sind die Methoden- und Lösungsanbieter selbst (v.a. **Fintechs, Tech-Startups, VfU-Partner sowie Open Sources aus internationalen Initiativen**).



Nächste Termine der Sustainable Finance Toolbox Webinarreihe



- **CLIMATE SCHOOL**
  - Datum: 26. Oktober 2023, von 10:00 bis 10:45 Uhr
  - Anmeldelink
  - Zur Climate School Homepage

- **FREEZE CARBON**
  - Datum: 23. November 2023, von 11:00 bis 12:00 Uhr
  - Anmeldelink
  - Zur Freeze Carbon Homepage

CLARITY AI

Nature & Biodiversity

VfU webinar

September 27, 2023

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Agenda

1. People & Clarity AI introduction
2. Introduction to Nature & Biodiversity
3. Dependency solution
4. Impact solution
5. Taskforce on Nature Related Financial Disclosures (TNFD)

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Clarity AI

- Andri Stocker, DACH Regional Director
- Serhat Öngen, Sr. Product Manager

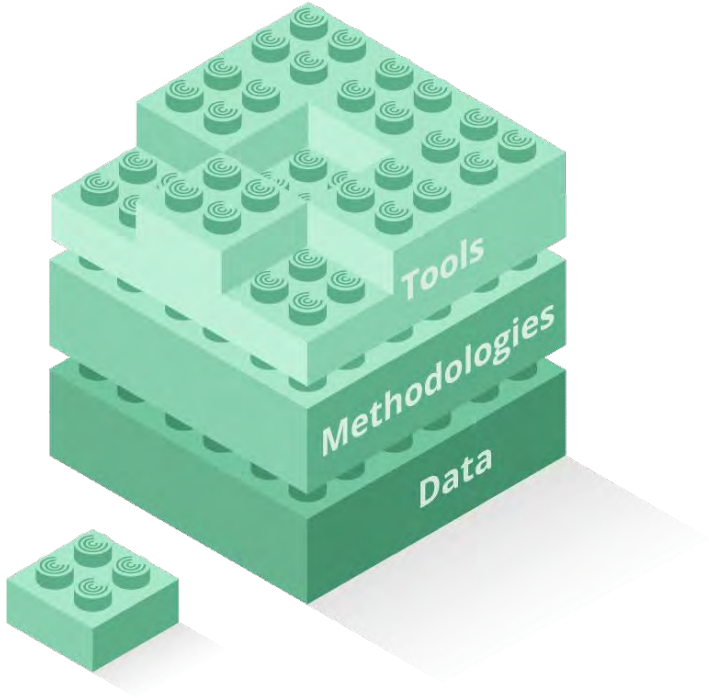
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About Clarity AI

Built-in sustainability tech for all segments - investors, companies, consumers

With tech building blocks for every sustainability use case, Clarity AI covers any needs related to data, methodologies or tools.

With digitally-native capabilities and a fully modular infrastructure, users can take and use any – or every – piece of our sustainability tech kit.



INVESTORS

COMPANIES

CONSUMERS

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Challenges Line the Path to a More Sustainable World

Investors have diverse needs and use cases, but common challenges

Asset Managers

*"I want to make more money **alpha in impact** metrics/build **thematic funds**"*

*I need to **report** to Institutions & Regulators"*

Wealth Managers

*"My customers (wealthy individuals) want to **understand the sustainability of their investments"***

Asset Owners

*"I need to **report sustainability** to Pensioners & Regulators"*

Individual Investors

*"I want to **understand** the **sustainability** of my investments"*

CHALLENGES

Data

Unavailable or unreliable, fragmented data

Methodologies

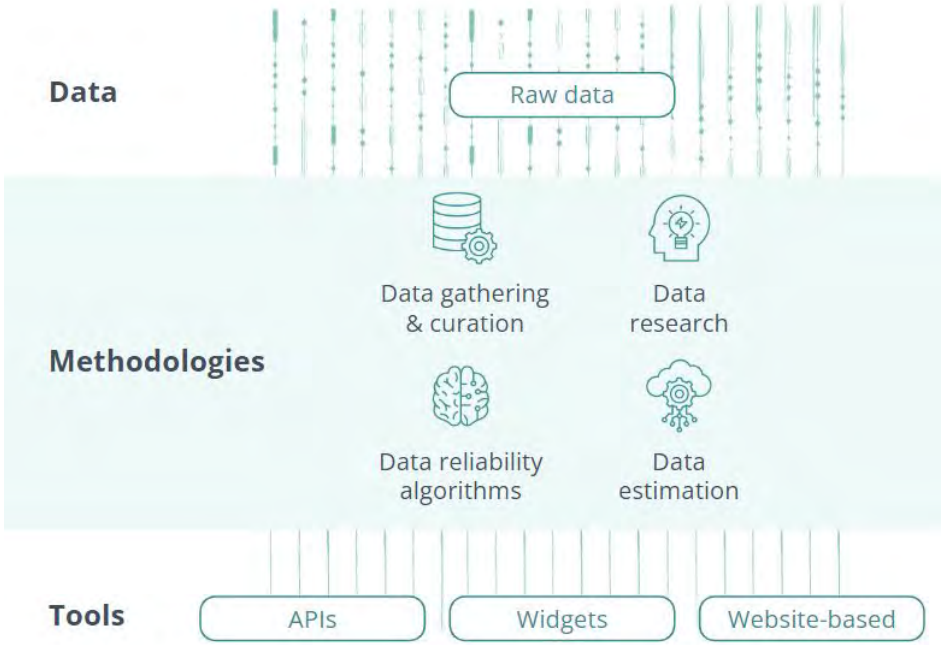
No standard definition or ratings of societal impact

Tools

Lack of tools for analysis & reporting

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AI Is at the Core of What We Do



A Powerful Core Of Adaptable Tech

Clarity AI is a digital-native firm and can therefore easily adapt to the quick pace of change of technology and of sustainability assessment and reporting requirements. *Build-in:*

- **Powerful, scalable AI at the core:** Leveraging Machine Learning to analyze >2M data points bi-weekly, perform reliability checks and run estimation models at scale
- **Reliable, transparent and unique data and coverage:** broadest data coverage in the market with up to 13x more than other leading players, including 70,000+ companies, 360,000+ funds, 198 countries, and 199 local governments
- **Scientific- and evidence-based methodologies powered by research & data science expertise:** Global team of sustainability and data science experts working to innovate, create, deploy and maintain tools and scores
- **Robust, fully-customizable tech kit:** Sophisticated, yet easy — crystal clear scores and access to full bottom-up granularity (data & methodologies)

USE CASES

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We Solve for Challenges Related to Data, Methodologies and Tools

A one-stop-shop for sustainability assessment, analysis and reporting for investors



Impact

Measuring external Impact on people and the planet

- UN SDG Revenue Alignment
- Impact Highlights
- Values Alignment
- Nature & Biodiversity



Risk

Measuring Risk and potential enterprise value creation linked to sustainability

- ESG Risk Assessment
- Corporate Controversies
- Exposure Screens



Climate

Clarifying climate implications based on international climate standards

- Carbon Emissions: Scores & Footprint
- Net Zero
- TCFD Reporting



Regulatory Compliance

Powering crystal clear, easy assessment, analysis and reporting

- SFDR
- EU Taxonomy
- MiFID II

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Nature & Biodiversity

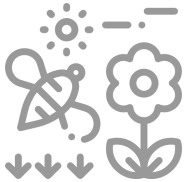
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Aligning on Definitions



Nature

The natural world, with an emphasis on the diversity of living organisms and their interactions among themselves and with their environment.



Biodiversity

The variability among living organisms from all sources. Includes diversity within species, between species and of ecosystems.



Ecosystem

A dynamic complex of plant, animal and microorganism communities and the non-living environment, interacting as a functional unit.

Portfolio analogy:

Nature *would be your assets and* ***biodiversity*** *the portfolio diversification. The level of diversity will affect ecosystems and degrade their services that are the main pathway to dependencies.*

Interaction with Nature & Biodiversity

Following the Taskforce on Nature Related Financial Disclosure (TNFD) Framework



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Dependency



Impact

In partnership with:

GIST IMPACT

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Introduction

- Climate TRACE is a global **non-profit coalition** that tracks Greenhouse gas emissions through **satellite imagery** and other forms of remote sensing
- Members of the coalition include Former VP Al Gore, Johns Hopkins Applied Physics Laboratory and TransitionZero
- Climate TRACE covers 7+ million assets across some of the highest emitting sectors (e.g., aluminum, cement, steel)
- Using asset-level data to identify and report on nature-related risks

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Identifying and Reporting on Nature-related Risks

Methodology for nature-related physical risks derived from dependencies on ecosystem services

	Identify high-materiality dependencies	Assess risk per asset for each dependency	Calculate share of revenue from assets at risk

Proposed approach	• Use ENCORE materiality matrices to identify dependencies on ecosystem services with High- and Very-high materialities[1]	• Interlay assets with risk maps from various international organizations (e.g. World Resource Institute)
		  ○ Identify areas of high risk related to each dependency
		  ○ Identify assets in those high-risk areas for each dependency
			• Share of production of assets are used as a proxy for the share of revenues with risk dependencies on nature.

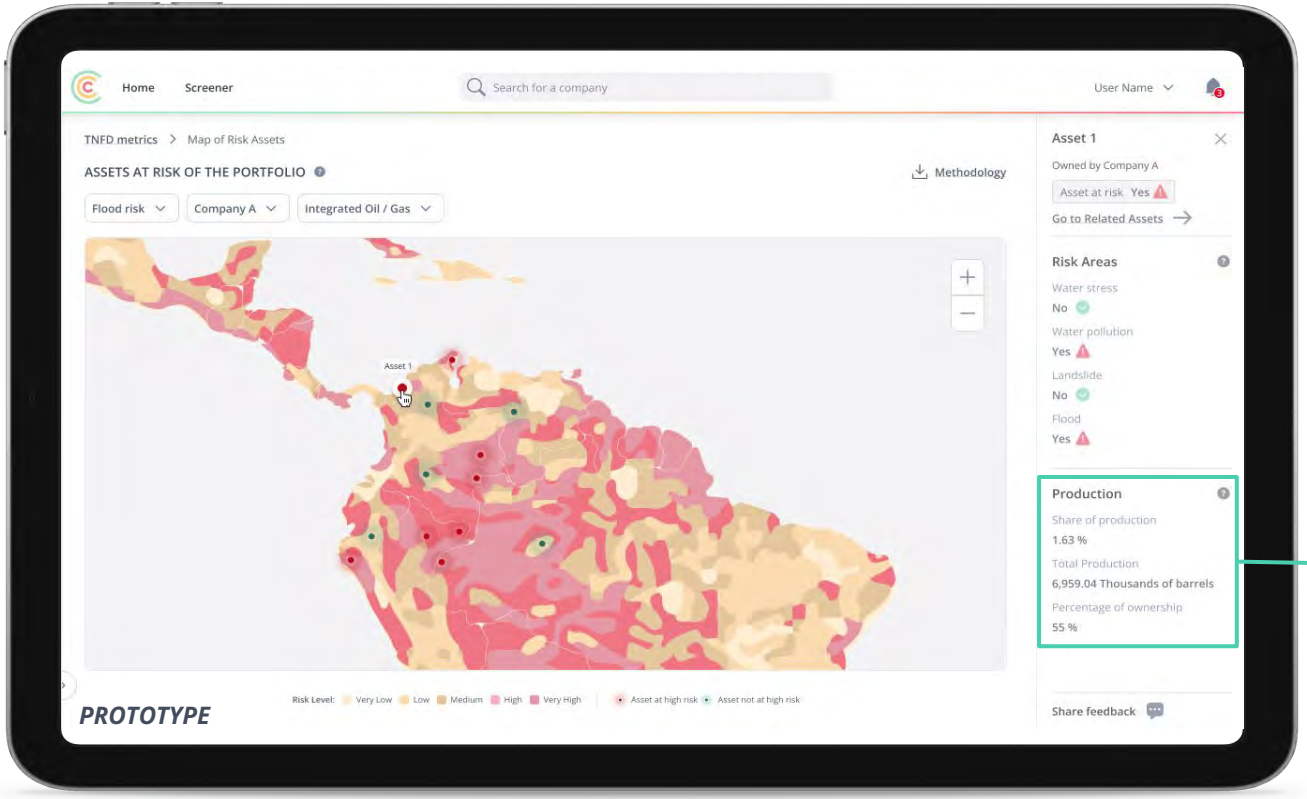
Integrated Oil & Gas example	• Surface water
	• Ground water
	• Flood and storm protection
	• Water quality
		• Identify assets at:
		  ○ Areas of Water stress
		  ○ Areas of high flood occurrence
		  ○ Areas with high landslide risk
		  ○ Areas close to rivers with high pollution levels
			• Outcome: For Company A in the oil & gas sector, 12% of their production originates from assets in high-risk areas

[1] Materialities reflect the loss of functionality in the production process and the financial loss
Source: Clarity AI methodology; Materiality maps from Encore - https://encore.naturalcapital.finance/

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Web App Overview

From company's physical **asset** exposure to nature-related risks…



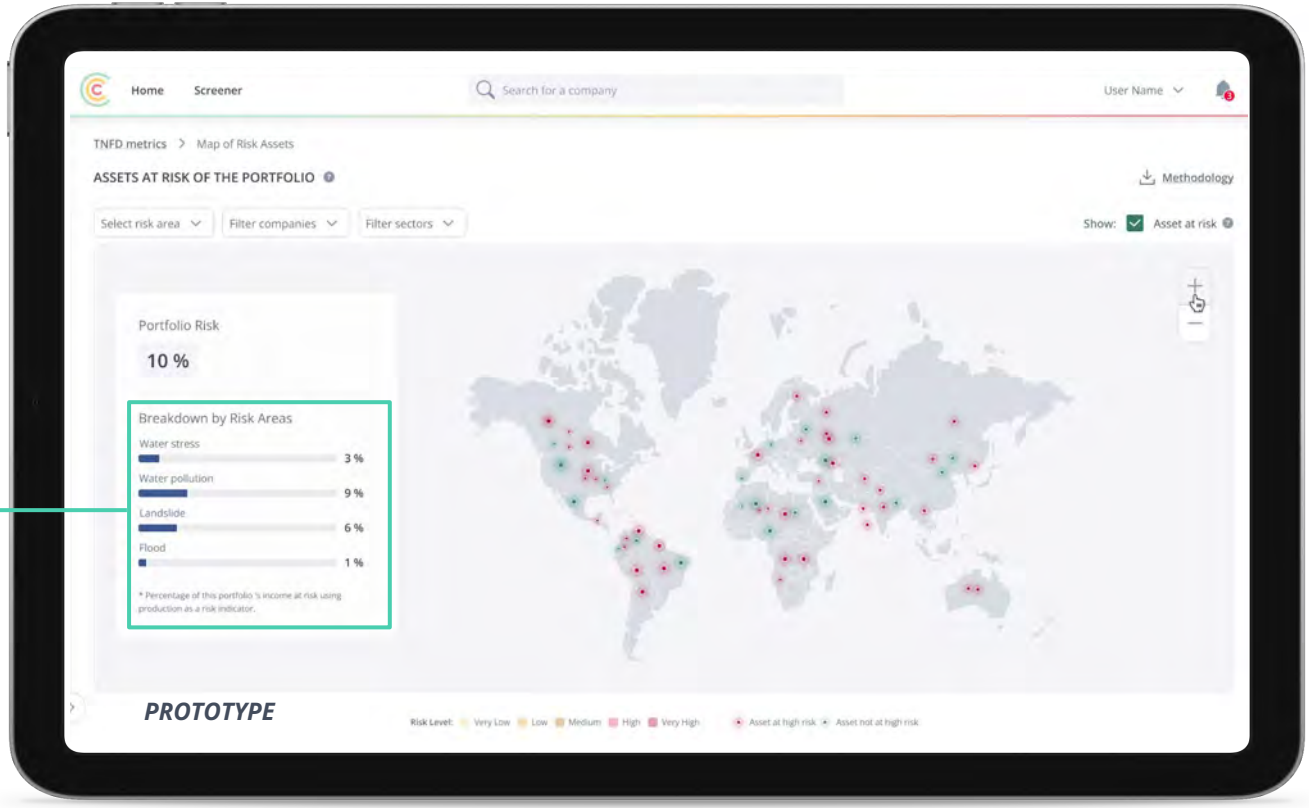
True granularity: physical asset production data

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Web App Overview

...To portfolio-level aggregation.

Portfolio view: risk area breakdown



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Dependency

Impact

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GIST IMPACT

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Company-level Biodiversity Impact Model

Drivers	Outcomes
Land use change	Land transformation, habitat destruction, fragmentation and degradation
GHG emissions	Increase in concentration of greenhouse gas emissions
Air pollution	Increase in concentration of nitrogen oxide (NOx) and sulfur oxide (SOx)
Water extraction	Freshwater unavailability
Water & land pollution	Increase in concentration of nutrients such as nitrogen and phosphorus
Waste generation	Increase in concentration of pollutants due to end disposal method

Impact metric: Marginal **potentially disappeared fraction** (PDF) of species

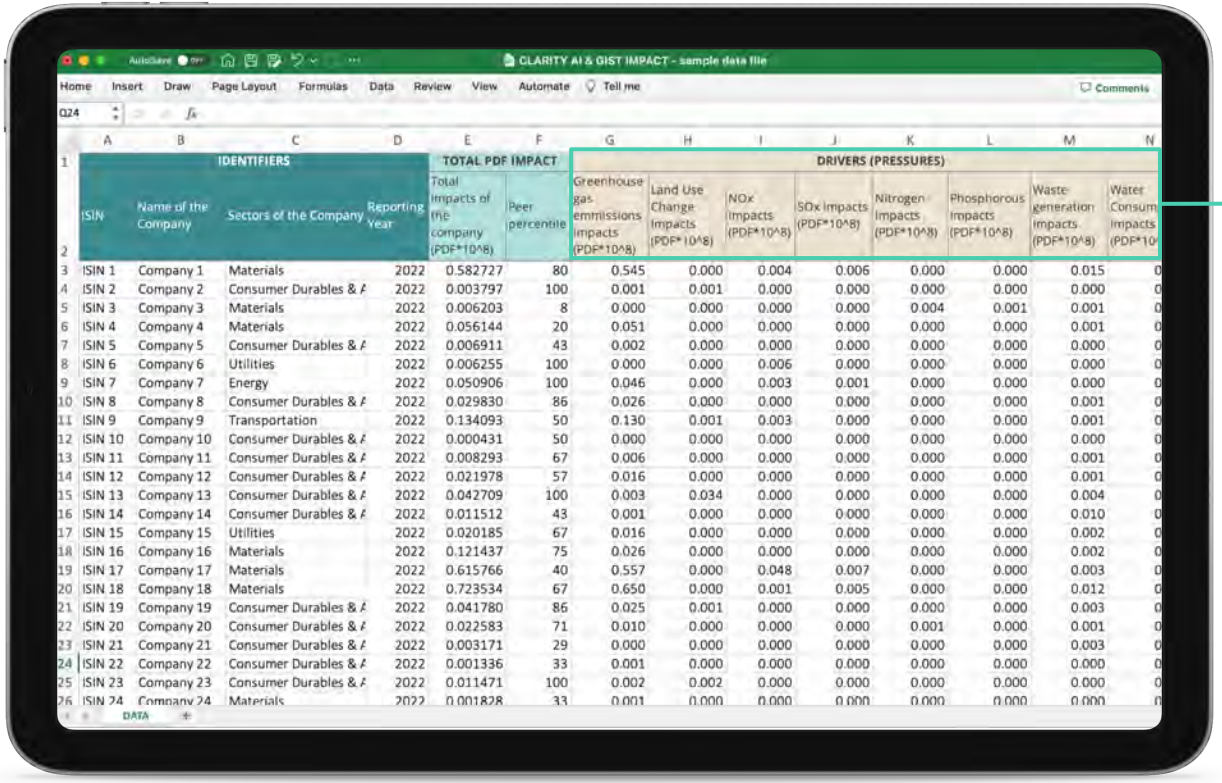
- Measure impacts that can lead to **extinction of species** based on the **LC-Impact** methodology [1] that expands on the ReCiPe
- Biodiversity impact is based on **company-specific** data, enabling comparison of companies in the same industry
  - Reported data is used when available and complemented with Machine Learning models
- Model incorporates company-specific **location data** to account for impact differences across regions

[1] Verones, F. H. (2020). LC-IMPACT: A regionalized life cycle damage assessment method.

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CLARITY AI

Footprint Measurement, Now Available Through Datafeed



Understand why: See which driver is causing the total impact

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Taskforce on Nature Related Financial Disclosures (TNFD)

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TNFD final publication review

Released the final recommendations (v1.0) in September, finalizing the 14 core indicators

Location prioritization metrics

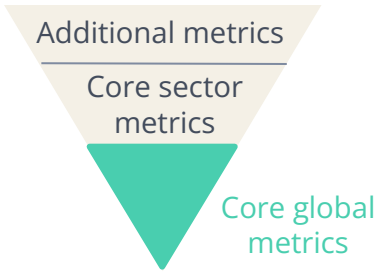
Evaluate Dependencies & Impacts

Assess Risk & Opportunities

Prepare to respond & report

Assessment metrics

Disclosures metrics



	Global indicators	Additional disclosure indicators for FI[1]
1.	Total spatial footprint	No
2.	Extent of land/ freshwater/ ocean-use change	Yes
3.	Pollutants released to soil split by type	Yes
4.	Wastewater discharged	Yes
5.	Waste generation and disposal	Yes
6.	Plastic pollution	No
7.	Non-GHG air pollutants	Yes
8.	Water withdrawal and consumption from areas of water scarcity	Yes
9.	Quantity of high-risk natural commodities sourced from land/ocean/ freshwater	Yes
10.	*Placeholder*[2]*:* Measures against unintentional introduction of invasive alien species (IAS)	No
11.	*Placeholder:* Ecosystem condition	Yes
12.	*Placeholder:* Species extinction risk	Yes
13.	Risk	No indicator
14.	Opportunity	No indicator

[1] Financial Institutions
[2] TNFD has placed placeholders for indicators that are not yet widely accepted, but encourages to consider and report where possible

Locate, Evaluate, Assess and Prepare (LEAP) approach

Clarity AI can help financial institutions in all four phases of the LEAP approach

	Locate	Evaluate	Assess	Prepare
Objective	• Locate interfaces with nature	• Evaluate priority dependencies and impacts	• Assess material risks and opportunities	• Prepare to respond and report
Suggested outputs	• Map of operational locations with overlay of ecosystems • List of priority ecosystems	• List of relevant environmental assets and ecosystem services • List and assessment of scale of dependencies and impacts	• Nature-related risks and opportunities the organisation should act on • Proposed approaches for risk management and opportunity identification	• Integrated disclosure of nature-related risks and opportunities
How Can Clarity AI Support You	• Identify companies in **portfolio** based on **look through** of securities • Create **map of company assets** with different overlays for high priority industries	• **Calculate impact on biodiversity** using company specific data • **Identify assets** and **related production** originating from high risk areas	• Calculate share of company revenues at risk or from **opportunities defined by the EU Taxonomy** • Comparison of risks to peers	• Generate portfolio summaries

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Empowering Financial Institutions for TNFD

Clarity AI provides a comprehensive TNFD reporting solution by leveraging its additional datasets

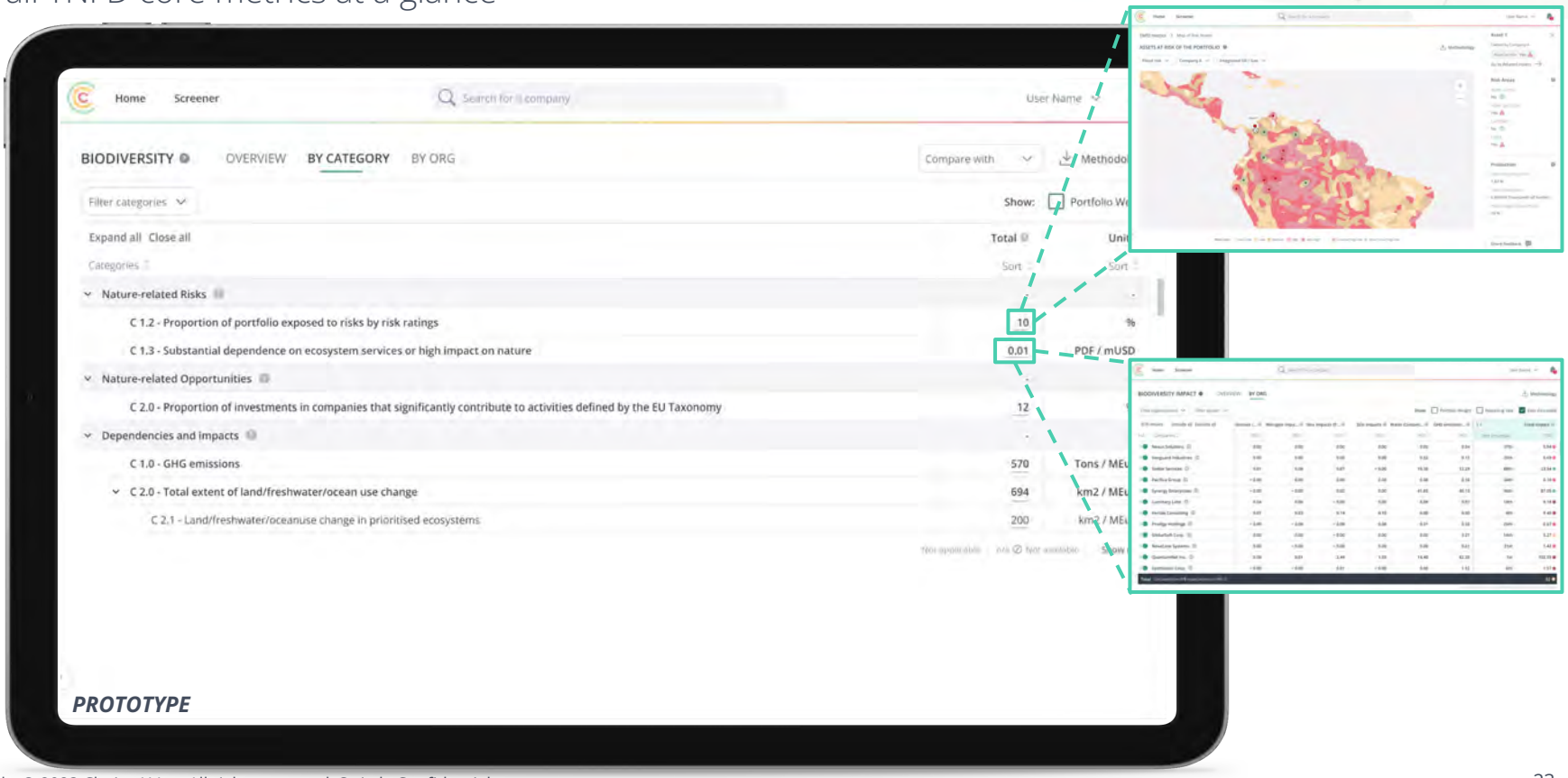
TNFD Metric Categories		Clarity AI metrics
Risks	Potential threats posed to an organisation linked to their dependencies and impacts on nature.	• **Share of revenues at risk** Based on asset-level data, ENCORE materialities and risk maps
Opportunities	Opportunities related to business models that actively work to reverse the loss of nature, including by restoration, regeneration of nature and implementation of nature-based solutions • TNFD references reference to governments or regulator green investment taxonomies	• **Impact footprint** Based on Potentially Disappeared Fraction (PDF) of species • **Share of revenues linked to opportunities** Based on the EU Taxonomy "the protection and restoration of biodiversity and ecosystems" objective
Drivers of nature change	Aspects of companies operations that contribute to their risk by increasing their impacts or dependencies on nature	• **Various SFDR PAIs[1] proposed by TNFD** Based on Potentially Disappeared Fraction (PDF) of species

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[1] Sustainable Financial Disclosure Regulation (SFDR) Principle Adverse Impact (PAI) indicators

Web App Overview

See all TNFD core metrics at a glance



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Thank you.

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About Clarity AI

Clarity AI is a sustainability technology platform that uses machine learning and big data to deliver environmental and social insights to investors, organizations, and consumers. Clarity AI's capabilities are an essential tool for end-to-end sustainability analysis related to investing, corporate research, benchmarking, consumer ecommerce, and regulatory reporting. As of January 2023, Clarity AI's platform analyzes more than 70,000 companies, 360,000 funds, 198 countries, and 199 local governments, which represents the broadest data coverage in the market with up to 13 times more than other leading players. One way Clarity AI delivers on its mission to bring societal impact to markets is by ensuring its capabilities are delivered directly into clients' workflows through integrations with partners like BlackRock - Aladdin, Refinitiv an LSEG business, BNP Manaos, Allfunds, and Simcorp. Additionally, Clarity AI's sustainability insights reach more than 150 million consumers across more than 400,000 merchants on the Klarna platform. Clarity AI has offices in North America, Europe, and the Middle East, and its client network manages tens of trillions in assets for companies like Invesco, Nordea, PGIM, Santander, Wellington, and BNP Paribas.

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