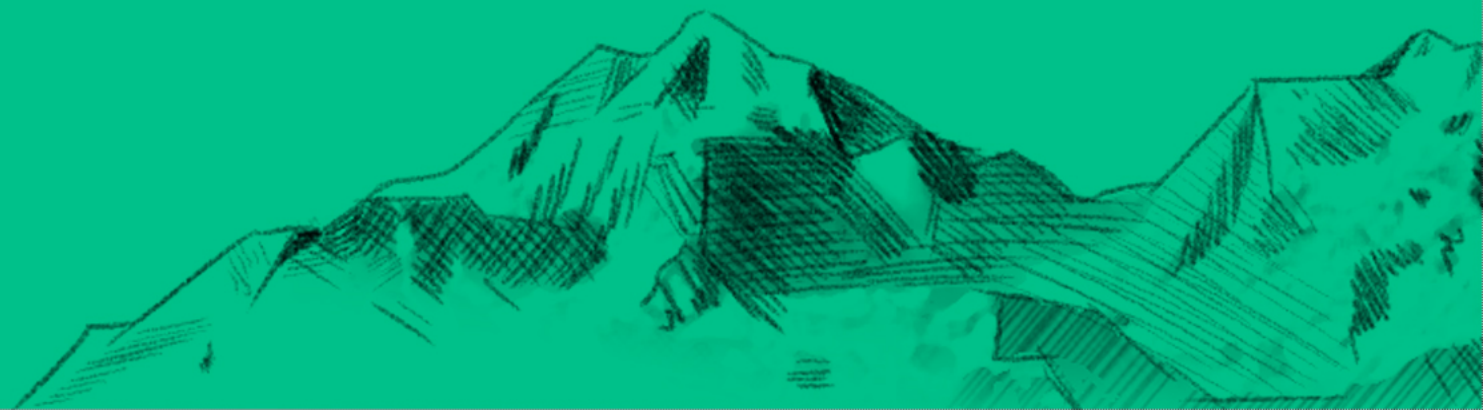
The XDC Model



What is the XDC Model?

The X-Degree Compatibility (XDC) Model is an economic climate impact model.

It calculates the contribution of a company, investment portfolio or other economic entity to global warming. Results are expressed as a tangible degree Celsius value: the XDC.

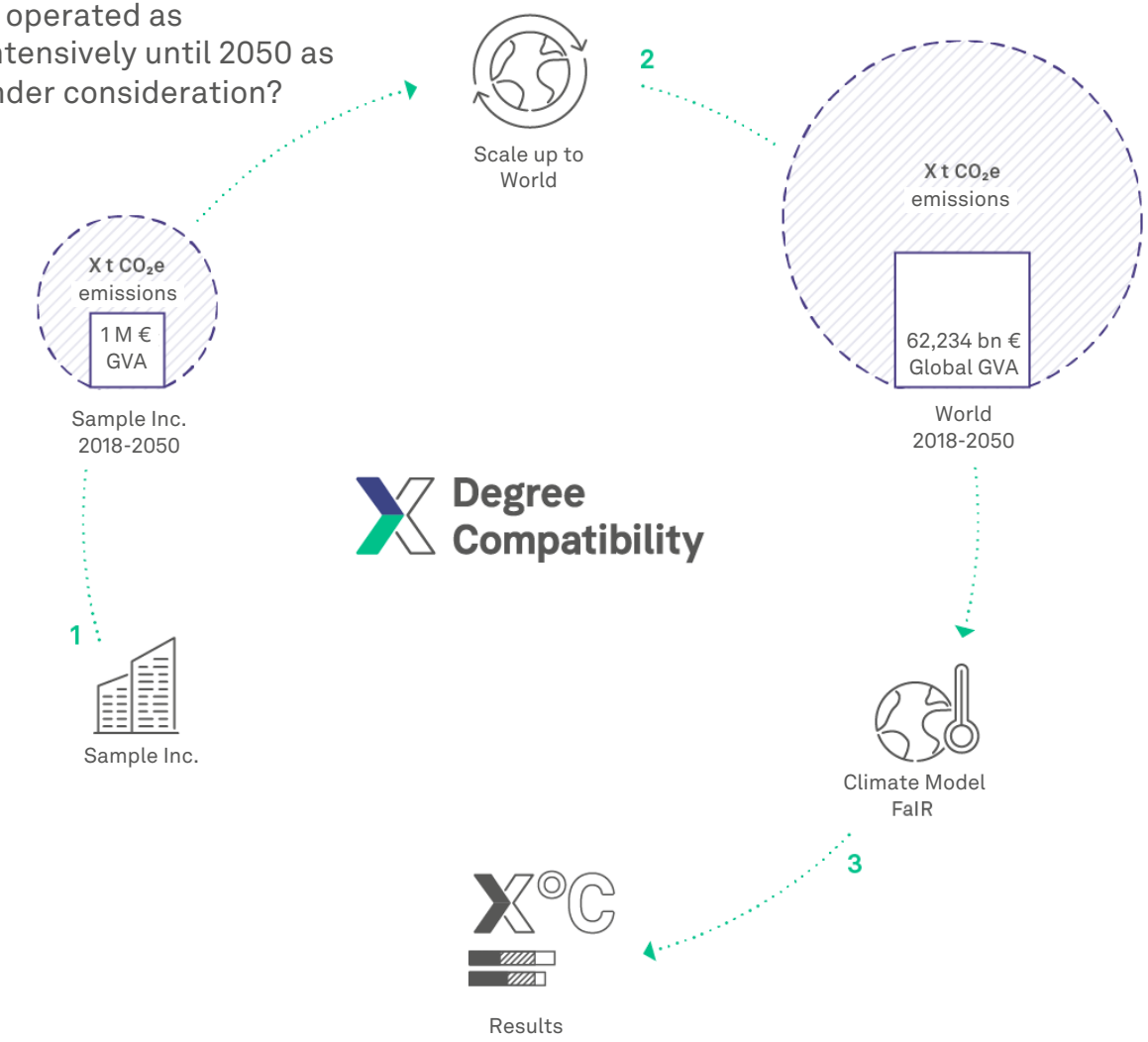
This science-based climate metric is used by companies, investors, and banks to manage their so-called ‘Temperature Alignment’, conduct forward-looking climate impact, climate risk, and scenario analysis, define emission reduction targets, generate climate alpha, and to enable the transition to a <2°C economy.

Calculation Process

2 What **quantity of emissions** (CO_2e) would reach the atmosphere if the **entire world** operated as emissions-intensively until 2050 as the entity under consideration?

1 What **quantity of emissions** (CO_2e) **does the entity** need to generate 1 M € in Gross Value Added (GVA) under a given scenario from a base year to 2050?

3 What **degree of global warming** would we expect if that amount of emissions reached the atmosphere?



XDC Model

Input & Output

Input Data

Also used by **ECB**

GVA

EBITDA, Personnel Costs

CO_2e Emissions

Scope 1, Scope 2, Scope 3

FactSet Research Systems
Urgentem

Components

Also used by **IPCC**

Climate Change Scenarios

2.0°C, 1.75°C

Climate Model

FaIR

SSPs, IIASA, IEA, other
University of Oxford & University of Melbourne

X Degree Compatibility

X°C Baseline XDC
Degree of global warming the **entity** is currently compatible with.

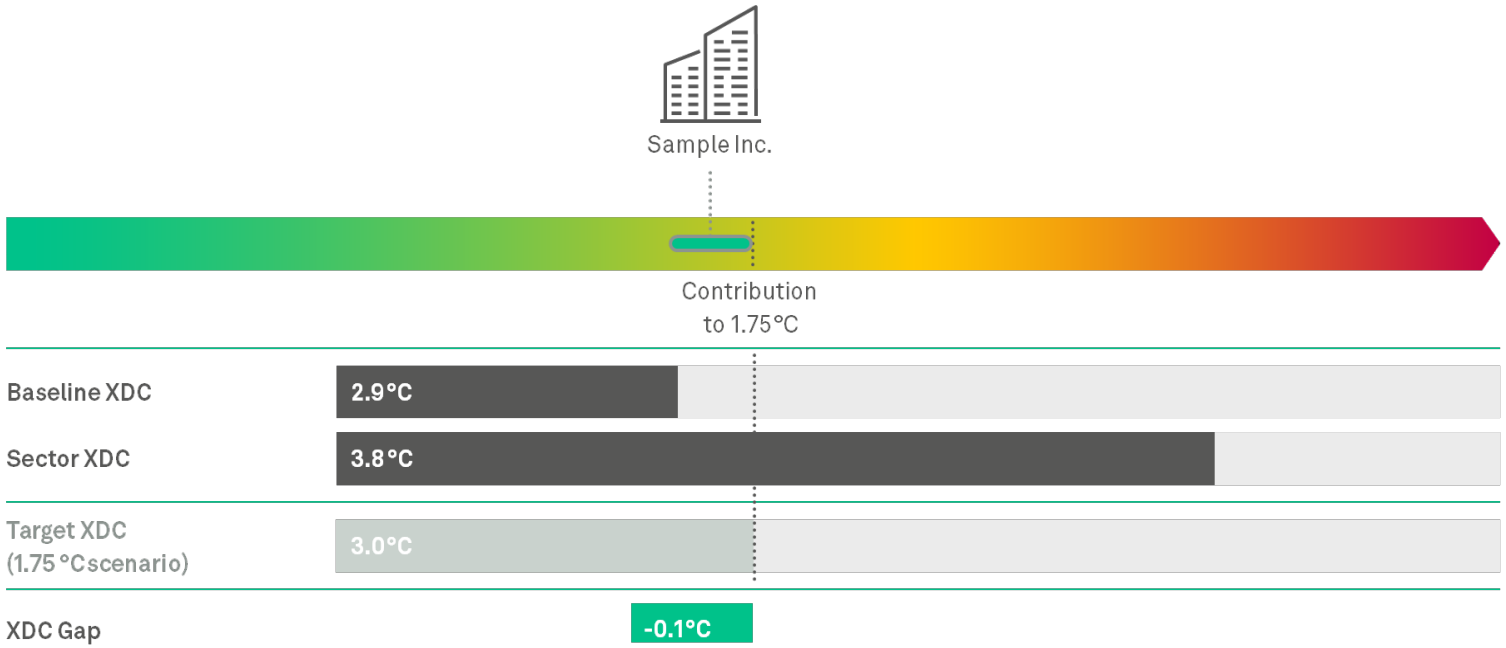
± X°C XDC Gap
Indication of **alignment/ misalignment** with the <2°C scenario

X°C Target XDC
Sector-specific target temperature in order to align with the <2°C scenario.

X°C Sector XDC
Degree of global warming the whole **sector** is currently compatible with.

30. November 2020

Results – Single Company



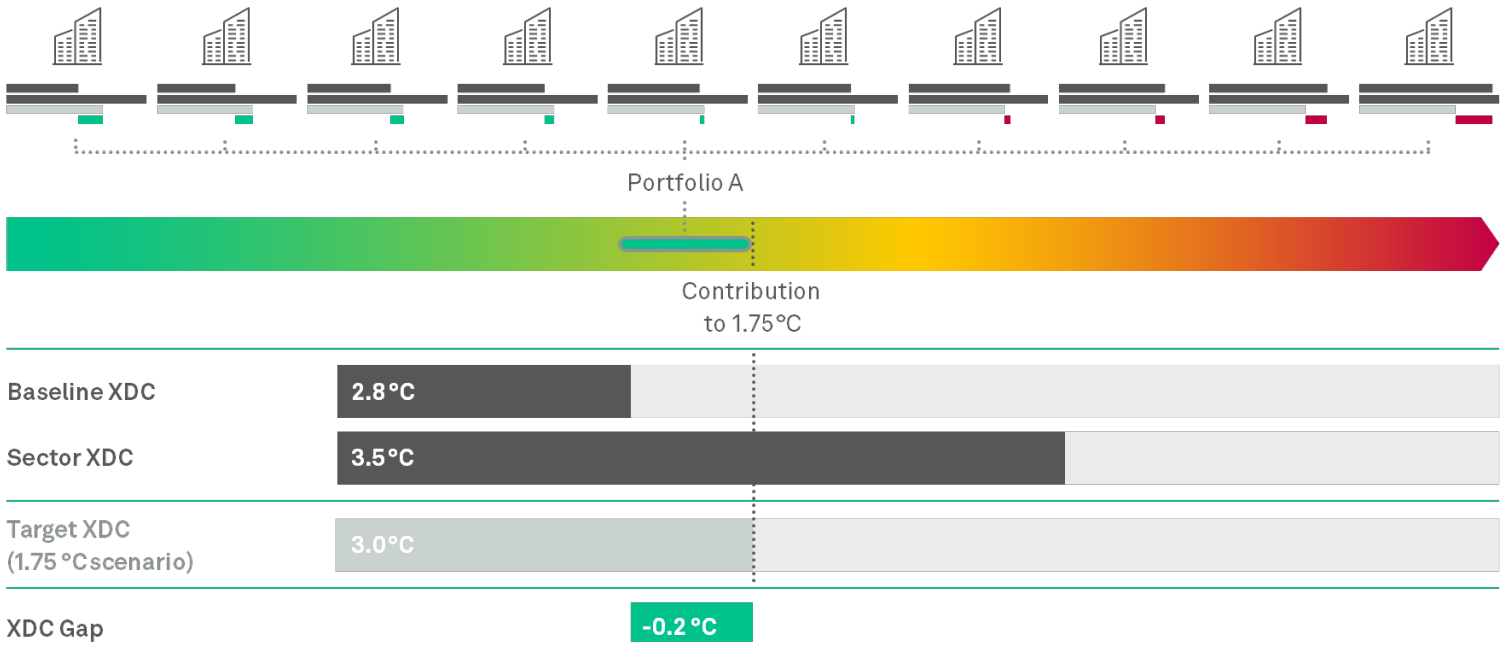
The company in this example has a Baseline XDC of 2.9°C.

The sector as a whole is at 3.8°C (Sector XDC).

To be compatible with a total global warming of 1.75°C (according to the IEA's B2DS scenario), companies in this sector would have to comply with a limit of 3.0°C or less (Target XDC).

This means that the company is -0.1°C below the limit of 1.75°C compatibility in the ‘as is’ or baseline scenario. It is compatible with the goal of the Paris Climate Agreement.

Results – Portfolio



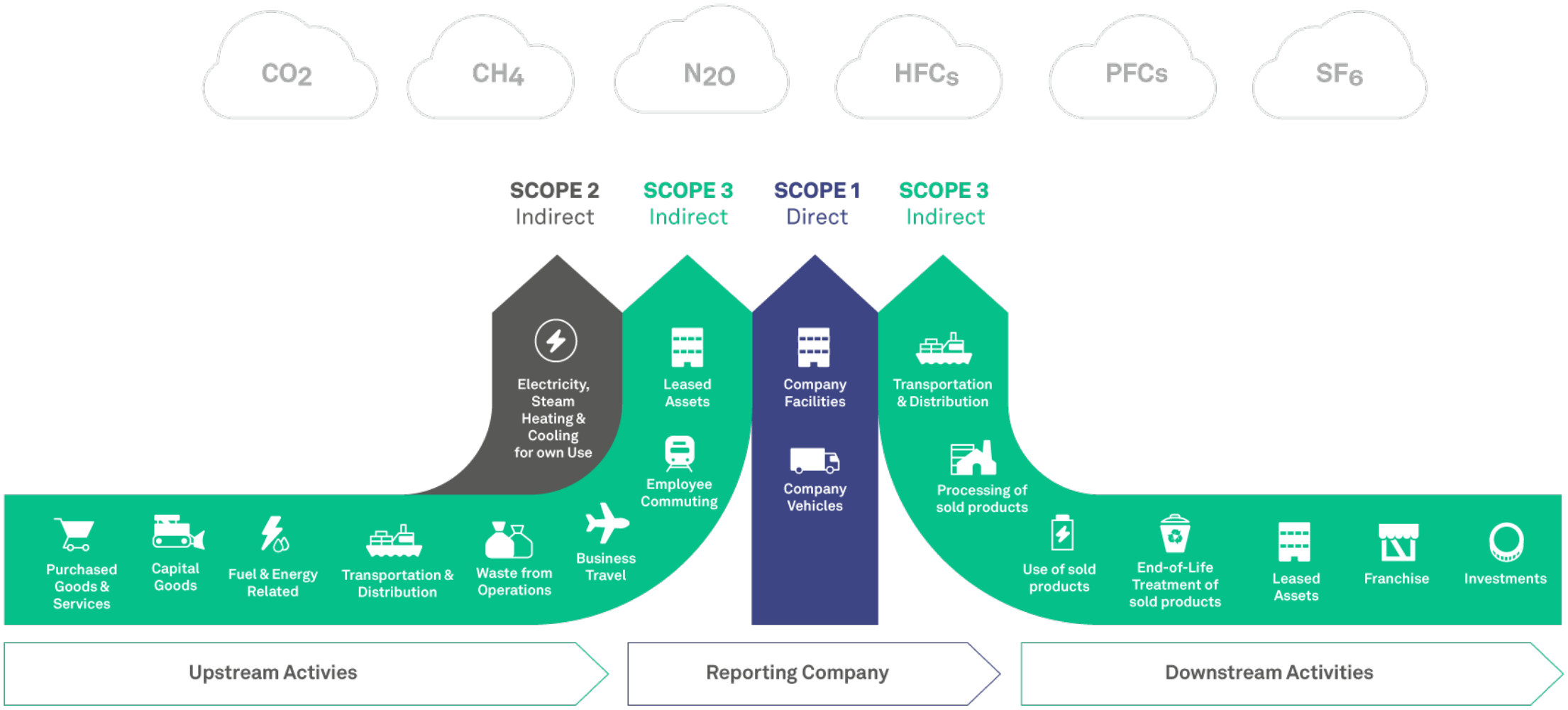
For the calculation of a Portfolio Baseline XDC, the economic emissions intensity (EEI, see step 1 in the calculation process) of all individual companies in the portfolio is aggregated according to their weighting. With this new EEI for the entire portfolio, steps 2 and 3 of the calculation are performed.

The portfolio in this example has a Baseline XDC of 2.8°C. The sectors covered in the portfolio are at 3.5°C (Sector XDC).

To be compatible with a total global warming of 1.75°C (according to the IEA's B2DS scenario), the portfolio would have to comply with a limit of 3.0°C or less (Target XDC).

This means that the company is -0.2°C below the limit of 1.75°C compatibility in the ‘as is’ or baseline scenario. It is compatible with the goal of the Paris Climate Agreement.

Overview: Emission Scopes 1, 2, and 3



Source: GHG Protocol Standard