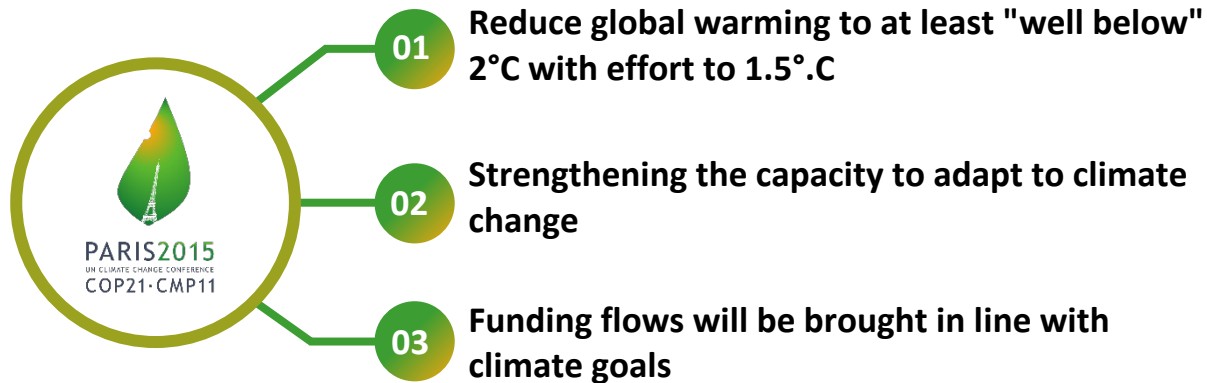# Scope 3 Emissions

The GHG-Protocol was introduced as a guideline for companies that want to calculate their GHG emissions in the course of the Paris Climate Agreement.

Paris Climate Agreement

- Agreement reached by 197 countries in 2015 for a new global climate protection agreement
- Now ratified by 180 countries that generate 55% of climate emissions
- The global peak in climate emissions should be reached as soon as possible and there should be a balance between emissions and their reduction by 2050
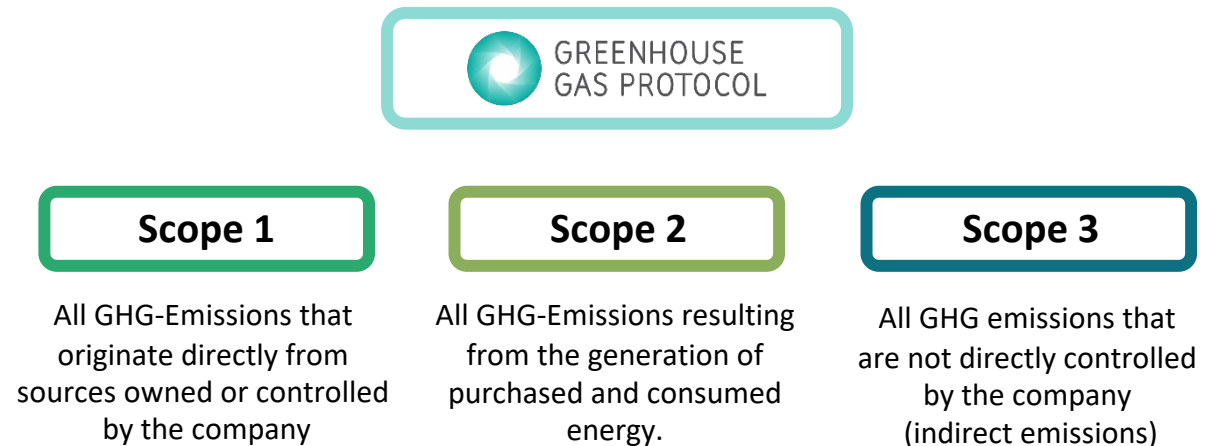
Targets of the Paris Climate Agreement

01 Reduce global warming to at least "well below" 2°C with effort to 1.5°.C

02 Strengthening the capacity to adapt to climate change

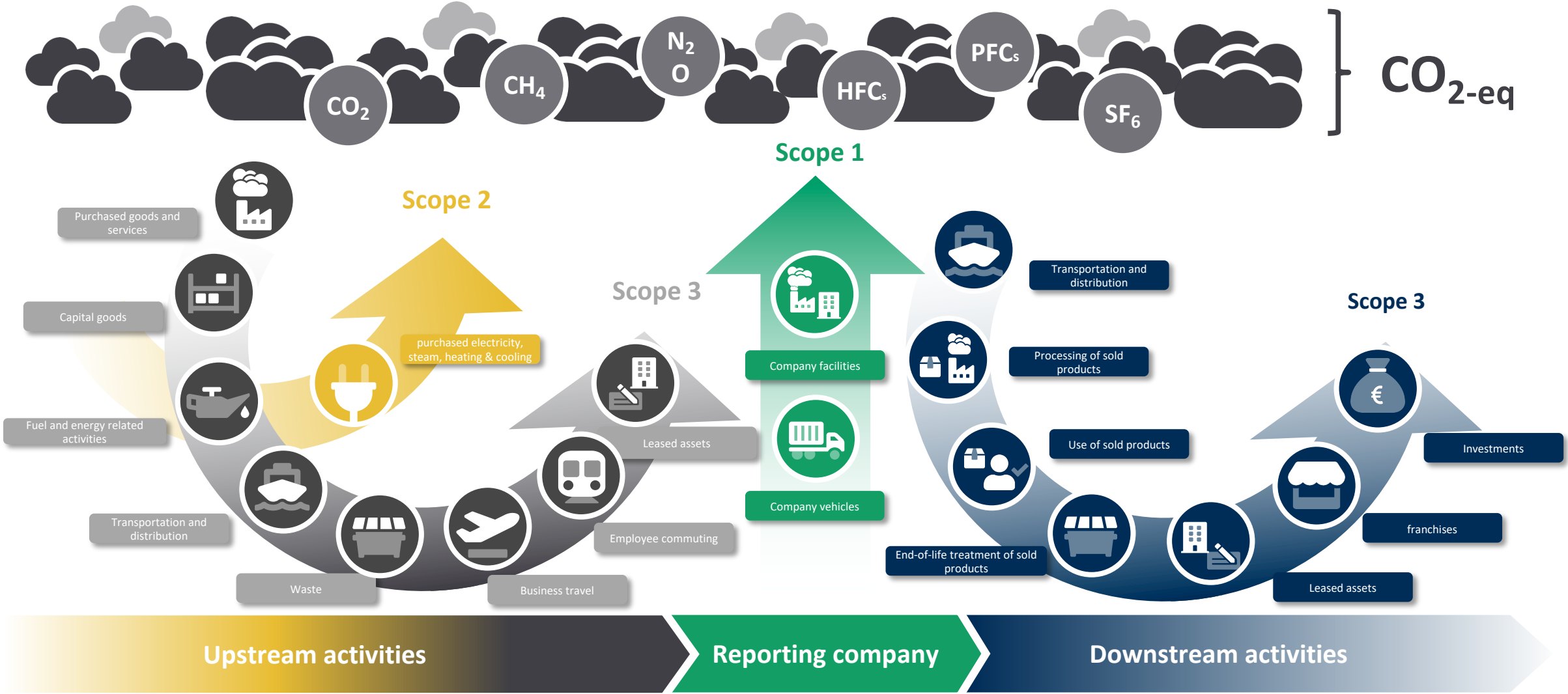**03** Funding flows will be brought in line with climate goals

Greenhouse Gas Protocol

- Set the standards to measure and manage Climateemissions
- Standard designed to assist companies in calculating their climate emissions.
- Divides the climate activities of a company into 21 categories, which are divided into scopes

Scopes in the GHG-Protocol

GREENHOUSE GAS PROTOCOL

Scope 1

All GHG-Emissions that originate directly from sources owned or controlled by the company

Scope 2

All GHG-Emissions resulting from the generation of purchased and consumed energy.

Scope 3

All GHG emissions that are not directly controlled by the company (indirect emissions)

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PORSCHE

HOCHSCHULE ESSLINGEN

The GHG-Protocol provides standardized guidelines for calculating the company's own climate emissions.

Scope 3 emissions consist of emission sources that are not directly controlled by the company (upstream and downstream emissions)

Scope 3 Emissions

Purchased goods and services Extraction, production, and transportation of goods and services purchased or acquired by the reporting company	**Business travel** Transportation of employees for business-related activities	**Use of sold products** End use of goods and services
Capital goods Extraction, production, and transportation of capital goods purchased or acquired	**Employee commuting** Transportation of employees between their homes and their Worksites	**End-of-life treatment of sold products** Waste disposal and treatment of products
Fuel- and energy related activities Extraction, production, and transportation of fuels and energy purchased or acquired	**Upstream leased assets** Operation of assets owned by the reporting company (lessor) and leased to other entities (Upstream)	**Downstream leased assets** Operation of assets owned by the reporting company (lessor) and leased to other entities (Downstream)
Upstream transportation and distribution Transportation and distribution of Products and Transportation and distribution services (Upstream)	**Downstream transportation and distribution** Transportation and distribution of Products and Transportation and distribution services (Downstream)	**Franchises** Operation of franchises not included in scope 1 and scope 2
Waste generated in operations Disposal and treatment of waste	**Processing of sold products** Processing of intermediate products	**Investments** Operation of investments (including equity and debt investments and project finance) not included in scope 1 or scope 2

Source: https://ghgprotocol.org/standards/scope-3-standard

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Scope 3 Emissions Tracking-Ideas

Purchased goods and services

- Webplattform in which the company tracks every product that was produced or transported by the company. Calculation of the emissions
- Dashboard in which all built cars and their number are converted into CO2 emissions with Ecoinvent Data

Capital goods

- Webplattform in which the company tracks every Capital good that was produced or transported by the company. Calculation of the emissions

Fuel- and energy related activities

- Calculating of the Fuel- and energy related activities of Business travels and Employee commuting

Upstream transportation and distribution

- Webplattform in which the company tracks every product that was produced or transported by the company. Calculation of the emittions

Waste generated in operations

- Dashboard to enter discarded trash from each individual employee
- Track all discarded products and use the database to calculate the CO2 footprint

Business travel

- Calculate CO2 emissions from distance traveled with average consumption
- Through GPS on the employee's business phone, tracking the route for business-related travelling in an app and tracking the CO2 emissions.
- Through the logs, where business-related travels are logged, calculate the CO2 emissions from every business trip for the employees that were part of the business trip.
- For travel with company car: taking fuel consumption over the entire trip duration for emissions calculation and allocation to person

Scope 3 Emissions Tracking-Ideas

Employee commuting

- Using a gps-strap like a fitness strap (cleverfit) to track those emmission maybe in combination of an fitnesstracker which is free for porsche employees
- Through GPS on the employee's smartphones, tracking the route which the employee took from home to work and comparing the CO2 emissions with the different transportation types(bicycle, car, scooter, …) in an app
- For company cars and leased cars: take fuel consumption for emissions calculation

Processing of sold products

- App in which, as in the database, emissions from the intermediate products are stored and can be supplemented with the emissions from further processing at Porsche

Upstream leased assets

- Web platform in which the leased assets are entered. With the help of an Ecoinvent interface, an estimate of the CO2 emissions can be made.

End-of-life treatment of sold products

- The most environmentally harmful components in a Porsche are provided with a QR code so that they can be returned to Porsche for recycling at the end of their life cycle. Integration of a database for processing the QR code data.

Downstream transportation and distribution

- Program in the cars that can measure emissions during transport and distribution to the end consumer

Use of sold products

- Through the Porsche cars integrated GPS, track the km that was driven with the employee's car per month/week and represent the generated CO2 emissions in the car's integrated display screen for the employee
- Tracking by a watch provided to the employees by the company. Watch recognizes which car it is and tracks the emissions
- For the motorsport department: taking the fuel consumption to record the emissions of the racing vehicles

Scope 3 Emissions Tracking-Ideas

😜 Most crazy idea

- A small robot that employees must always have with them and that can track emissions

😴 Most boring idea

- Just create a digital Logbook for company trips

🚀 Most impactful idea

- Some Wearable (clock,...) that tracks the co2 data and shows the user how much he reduced.

😎 Easiest idea

- Flipchart in the office where every employee can write down his reduce.

😍 Most loved idea

- Tracking company trips through a App with reward system and scoreboards

😠 Most hated idea

- User has to input their data manually (which route the user took). After the user input, it calculates the emissions. It could be on a website or an app.