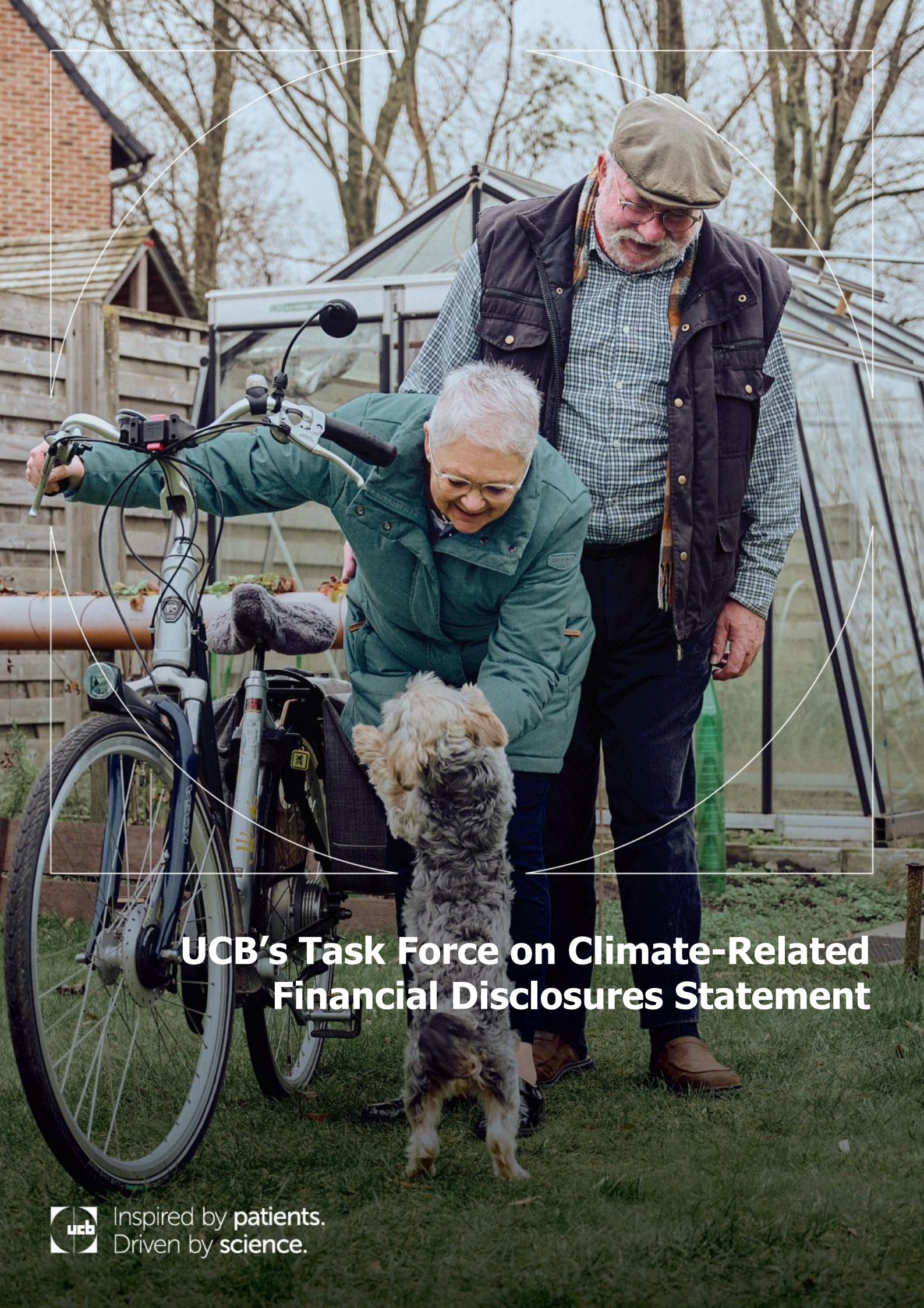


UCB's Task Force on Climate-Related Financial Disclosures Statement

Inspired by **patients.**
Driven by **science.**

UCB is committed to aligning with the Task Force on Climate-related Financial Disclosures (TCFD), an initiative created by the Financial Stability Board. This is UCB's TCFD disclosure, reflecting our actions and processes as of December 31, 2022. We will update our disclosure, as both our business and climate science continue to evolve.

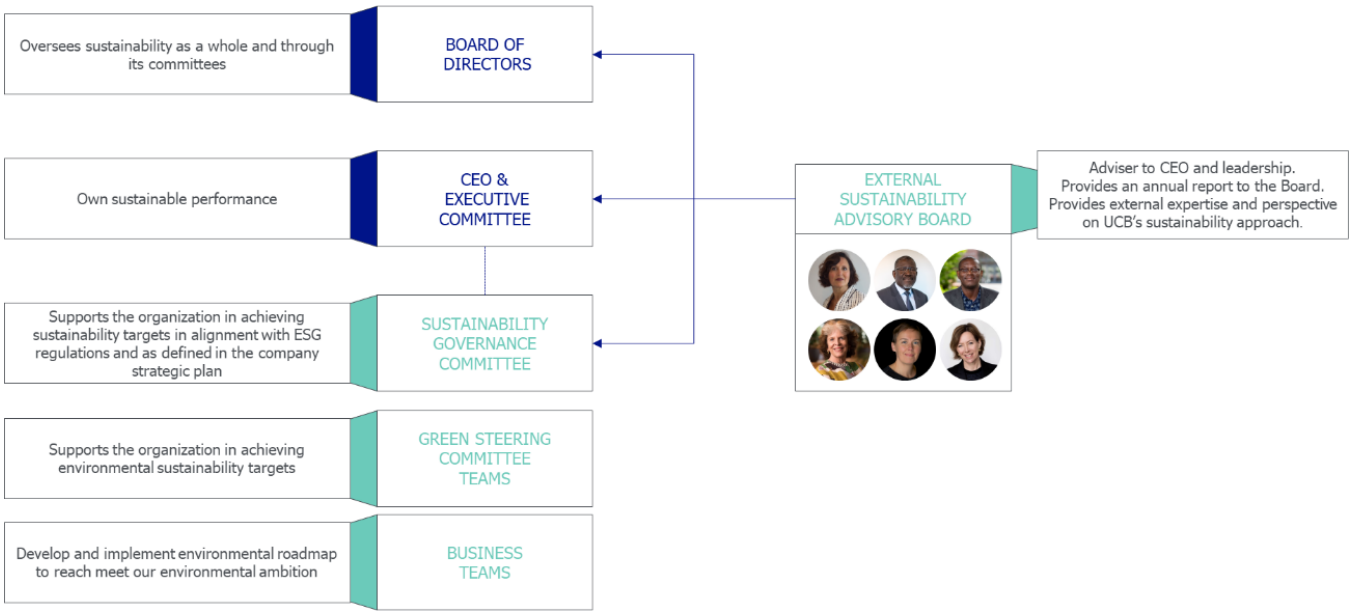
1. Governance

The Executive Vice President, Supply & Technology Solutions; equivalent of the Chief Operating Officer (COO); is sponsoring UCB's environmental and climate strategy, including reviewing and approving the environmental strategy and associated budget, climate and water targets and ambition-related issues. The COO presents the environmental strategy to the Sustainability Governance Committee chaired by the Global Head of Sustainability (reporting to the CEO) for feedback and alignment, and then to the Executive Committee for final approval. The environmental strategy is also reviewed once a year at the External Sustainability Advisory Board (ESAB) meeting with 6 external subject matter experts, including one expert on environmental issues. The ESAB will provide external expertise and perspective on UCB's climate change approach to deepen UCB's understanding of sustainability and provide insights and recommendations to enhance our positive contribution to society and stay on track with what society expects from a sustainable biopharma leader. ESAB's quarterly meetings are attended by four Executive Committee members and open for board members to attend. At least one board member is in possession of ESG skills and experience. A report of the ESAB is presented to the Board of Directors of UCB on an annual basis.

The COO also chairs the Green Steering committee every 6 months, alongside colleagues from other functions, such as the Head of Manufacturing and Engineering, the Head of Procurement, the Head of Supply Chain, the Head of Sustainability and other key internal stakeholders involved in the management of environmental/climate-related processes, program, risks and opportunities. The COO also holds monthly meetings with the Head of Environmental Sustainability to review UCB's green program dashboard.

Ultimately, UCB's overall strategic plan that includes our environmental and climate-related strategy, as well as key information about the top risks (including climate-related risks) identified by all business areas and respective leadership teams, is endorsed by the Board of non-executive directors. As the full Board of non-executive directors is engaged in sustainability, including climate change issues, there is no specific sustainability committee created within the Board. Climate-related risks and opportunities are also reviewed on a yearly basis by the Enterprise Risk Committee.

The organizational structure of the key actors who oversee climate change issues is outlined in the following chart:



Additional references: CDP questions C1.1a C1.1b, C1.2, C1.2a and to the section Our Governance in our 2022 Integrated Annual Report.

2. Strategy

2.1. Risks & opportunities, scenarios and time horizons considered

UCB is committed to take environmental topics into consideration when developing its business strategy. Within the environmental risks and processes identified and disclosed on a yearly basis in our Integrated Annual Report, UCB assessed its exposure to climate-related risks and opportunities in alignment with the TCFD recommendations.

To inform the business strategy UCB performed climate scenario analysis. The following key concepts for the scenario analysis in alignment with the TCFD have been applied:

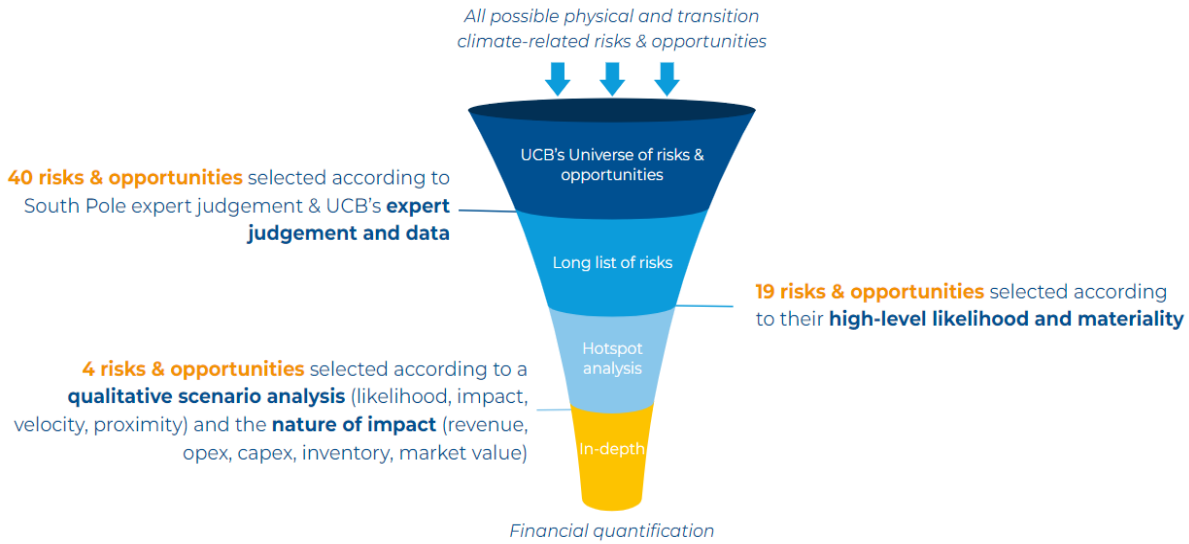
- **Risk and opportunity categories:**
  - **Physical risks and opportunities:** linked to the impact of acute risks (e.g., increased severity of powerful storms/hurricanes) and chronic risks (longer-term shifts in climate patterns such as a sustained increase in temperatures);
  - **Transition risks and opportunities:** linked to the impact of a transition to a low-carbon economy (e.g., net zero retrofit requirements and carbon pricing schemes). An analysis of transition risks and opportunities, defined by the TCFD (policy and legal, technology, market, and reputation) was performed for this report.
- **Scenarios**: Four scenarios were considered in this analysis, two for physical risks and two for transition risks.

Physical risks	**For the analysis of the physical risks and opportunities, the two chosen scenarios are provided by the Intergovernmental Panel on Climate Change (IPCC).** **RCP (Representative Concentration Pathway) 8.5, a high-impact scenario** The RCP 8.5 scenario represents the most 'extreme' scenario from a physical climate change perspective, assuming a future where almost no mitigation action is taken and emissions continue to rise at the current rate, and where global mean temperature increases by 4ºC by the end of the century relative to the pre-industrial period. Under this scenario, significant changes in the frequency and intensity of acute and chronic physical risks already occur by mid-century. **RCP 4.5, a moderate scenario** The RCP 4.5 represents a high mitigation scenario where emissions start declining by mid-century, and where global mean temperature increases by 2.4ºC by the end of the century relative to the pre-industrial period. Under this scenario, moderate changes in the frequency and intensity of acute and chronic physical risks already occur by mid-century.
Transition risks	**For the analysis of the transition risks and opportunities, the two chosen scenarios are reference scenarios provided by the International Energy Agency (IEA).** **"Business as usual" scenario: using the IEA's Stated Policies Scenario (STEPS)** This scenario considers current policy settings (already implemented or confirmed upcoming policies). It shows that the current path set by energy and climate policies is not sufficient to meet the goals of the Paris Agreement. By 2100, this 'well-above 2°C scenario' results in an increase in global temperatures limited to 2.6°C above pre-industrial levels (with a 50% confidence level). The STEPS is the IEA's 'worst-case' scenario based on the current policy and market landscape and trends. **"Fast transition" scenario: using the IEA's Sustainable Development Scenario (SDS)** This scenario draws a pathway to effective climate mitigation with a 'well-below 2°C' outcome, while also considering other sustainable development goals such as global health or easy access to energy. It considers any existing or announced policy instrumental in achieving these ambitious targets. By 2100, this 'well-below 2°C scenario' results in an increase in global temperatures limited to 1.6°C above pre-industrial levels (with a 50% confidence level). The SDS is the second-best scenario

	from the IEA regarding temperature outcome, after the Net Zero Emissions Scenario that results in a 1.5°C increase; on top of that, while also achieving the Paris Agreement goals, the SDS maximizes other valuable parameters beyond carbon emissions (e.g., sustainable goals).

- **Time horizon**: UCB considered three different time horizons for this assessment: short, medium and long-term time horizons.
    - Short-term: UCB's existing climate-related risk from today to 2025.
    - Medium-term: since the horizon of the UCB's current climate objectives is 2030, UCB considers the period between 2025 and 2030 as the medium term for climate-related risks and opportunities.
    - Long-term: UCB considers the long term in relation to climate-related risks and opportunities up to 2050 as commonly used.

Following the TCFD guidelines, UCB went through an extensive hazards identification exercise and narrowed it down to the material financial risks and impact on the organization. The first step was to develop an initial list of climate-related physical and transition risks and opportunities that could impact UCB's business across the company and the value chain, including key UCB facilities, key suppliers (e.g., contract manufacturing organizations) as well as key markets. UCB was advised by a climate consultancy – South Pole – and analyzed insights from a cross-functional group of stakeholders at UCB to build the assessment. UCB held climate scenario workshops with key stakeholders to prioritize risks and opportunities based on the importance of those risks and opportunities to the business, by applying UCB's Enterprise Risk Management methodology. 14 risks were put forward for scenario analysis (detailed in the chapter "scenario analysis"). The results were further analyzed with the respective UCB stakeholders, and four risks/opportunities were selected based on their potential materiality for a detailed impact assessment.



2.2. Scenario analysis

In this section the scenario analysis including the methodology and results are further detailed.

The scenario analysis was performed in two stages:

- In the first stage, we focused on identifying the hotspots of climate change consequences based on the significance of the change (frequency and severity of the environmental hazards) compared to today
- then in the second stage, we explored the probability of this change impacting UCB (hazards being materialized in risks).

In the first stage, the main goal of the first stage is to identify 'hotspots' of climate change, focusing on the delta from current situation. The hotspots are identified by conducting a scenario analysis (from 8.5, a high-impact scenario & RCP 4.5, a moderate scenario). The studied time horizons are: 2030 (medium-term) and 2050 (long-term) for the physical risks and opportunities; and 2025 (short-term) and 2030 (medium-term) for the transition risks and opportunities. While changes in physical risks are projected to materialize more strongly in the next decades and particularly from the middle of the century, the analysis of transition topics is more relevant in the short and medium term than in the long term, as the evolution of business conditions beyond 2030 is subject to very high uncertainty.

For the seven physical hazards put forward at this stage, a rating from low to very high is applied based on the frequency and severity of the hazards to occur compared to the 2020 baseline. For example, a high rating means a significant change is expected compared to today's business conditions which will therefore require further investigation to assess its potential risk on UCB's business.

In the second stage, the in-depth assessment, the main goal is to analyze the high ranked hazards with more granularity and coverage to quantify the possible financial risks using UCB's Enterprise Risk Management (ERM) framework and UCB stakeholders intel from interviews and workshops (including corporate and key stakeholders from Sustainability, Procurement, Finance, Supply chain, Internal and External manufacturing, Enterprise Risk Management, Engineering, and Safety departments, to name a few).

a. Physical risks and opportunities

i. Hotspot analysis

The identification of the site-specific risks was done based on judgment from climate experts, UCB's records of environmental physical hazards, and feedback from key internal stakeholders.

The geographical coverage of the analysis was defined based on revenue, size of facilities and number of employees, and strategic importance of the activities performed in the location, based on which 11 countries were selected[1].

Overall, seven hazards (water scarcity, water quality, heavy precipitation and flooding, extreme temperatures, hurricanes, hailstorms and wildfires) have been identified to be relevant for UCB in the respective countries, however, not every hazard is relevant in every country, for example, hurricanes were only relevant in the United States (from the 11 countries selected above).

A qualitative rating was assigned to each hazard (low, moderate, high, or very high) based on the strength of the climate change signal (i.e., degree of change from baseline under each climate scenario). The rating was defined following specific thresholds based on scientific literature.

The summary of the results of the hotspot analysis under the RCP 4.5 and 8.5 scenarios is seen in the following figure:

Legend	Degree of change from baseline under each climate scenario
	Very high
	High
	Moderate
	Low
	Uncertain

Environmental physical hazards	Countries where hazards is relevant	RCP4.5 (2030)	RCP8.5 (2030)	RCP4.5 (2050)	RCP8.5 (2050)	Potential impact for UCB business & mitigation measures in place
Water scarcity	Country A (America)					As UCB transforms its processes into bio-pharmaceutical ones, a secure source of good quality freshwater will become more important. Although there are water saving measures in place, water scarcity could have significant impact at site
	Country B (Europe)					
	Country C (Asia)					

[1] The exact countries will not be disclosed due to the confidential nature of UCB's supply chain

Environmental physical hazards	Countries where hazards is relevant	RCP4.5 (2030)	RCP8.5 (2030)	RCP4.5 (2050)	RCP8.5 (2050)	Potential impact for UCB business & mitigation measures in place
	Country D (Asia)					level, including slightly higher operational costs if not enough water is available.
	Country E (Asia)					
Water quality	Country A (America)					Water quality risks could increase pre-treatment costs for incoming water. However, current purification technologies already implemented at company level can be scaled or expanded at a marginal cost increase.
	Country B (Europe)					
	Country C (Asia)					
	Country D (Asia)					
Heavy precipitation and flooding	Country A (America)					Some potential impacts for UCB related to heavy precipitation and flooding include direct damages to buildings, impact neighborhoods affecting employees and/or customers, potential increase in insurance costs, production and supply chain interruptions, and adaptation costs for building protection. Insurance for suppliers and facilities cover this kind of natural hazard. Flooding in key research hubs in Europe could delay new differentiated solutions for patients into markets and therefore have financial impact.
	Country B (Europe)					
	Country C (Asia)					
	Country F (Europe)					
	Country G (Asia)					
	Country E (Asia)					
	Country H (Europe)					
	Country I (Europe)					

Environmental physical hazards	Countries where hazards is relevant	RCP4.5 (2030)	RCP8.5 (2030)	RCP4.5 (2050)	RCP8.5 (2050)	Potential impact for UCB business & mitigation measures in place
	Country J (Europe)					
	Country K (Europe)					
Wildfires	Country A (America)					Wildfires can cause damage to buildings and equipment, impact neighborhoods affecting employees and/or customers, and cause supply chain interruptions, although their impact is more localized and less prone to make direct damages to industrial buildings than other types of risks.
Extreme high temperatures	Country H (Europe)					Extremely high temperatures can damage goods stored in warehouses, compromise drug stability, and cause heat stress conditions for employees working outside controlled condition areas. Current mitigation measures include HVAC systems extensively in the full supply chain as well as a BREEAM/LEED certification for all new buildings or major revamping that include climate change resilience features. Overall impacts are very localized and potentially not material on a company level.

Environmental physical hazards	Countries where hazards is relevant	RCP4.5 (2030)	RCP8.5 (2030)	RCP4.5 (2050)	RCP8.5 (2050)	Potential impact for UCB business & mitigation measures in place
Hurricanes	Country A (America)					Increase in frequency and severity of hurricanes may cause flooding damage to coastal infrastructure and assets and disrupt the supply chain. This risk is not projected to increase significantly around our key US sites by mid-century. Insurance for suppliers and facilities cover this kind of natural hazard.
Hailstorms	Country I (Europe)					Hailstorms can damage buildings and can potentially increase insurance costs. Previous hailstorm events have not interrupted production and UCB's insurance already covers impacts caused by this hazard.

ii. In-depth analysis

The hotspot analysis is focusing on the climate change hazards as in-depth analysis puts the emphasis on the potential financial risks on UCB's business structure. The selection from hotspot to in-depth analysis was the materiality of hazards to become a risk. Factors taken into account to assess the materiality were: Frequency and severity of the hazards, UCB's ERM system (likelihood, impact, velocity, and proximity of the risk for UCB's business), and UCB's internal financial impact assessment guidelines (impact on cost of sales/OPEX, CAPEX, inventory/cash flow, and market value/reputation).

Water scarcity and heavy precipitation and flooding were determined to be the hazards with the highest material risk to UCB's operations and were studied at a greater detail in an in-depth analysis. UCB will continue to monitor the other physical hazards as well and perform additional in-depth analysis when necessary.

For heavy precipitation and flooding, the 25 locations assessed in the first step were selected on the bases of their importance to UCB: headquarters, all offices, research laboratories and manufacturing sites as well as the most strategic suppliers.

For water scarcity, the criteria for choosing the three sites were: location with high level of water scarcity, water consumption, and strategic importance of the site for UCB's business.

Key physical risks			
Risks		**Heavy precipitation and flooding**	**Water scarcity**
Timeframe		Medium (2030) and long-term (2050)	Medium (2030) and long-term (2050)
Locations in scope		25 key facilities to UCB selected on revenue generated, size of facilities and number of employees, and strategic importance of the activities performed in the location	3 key locations to UCB (2 in Europe, 1 in Asia) selected on revenue generated, size of facilities and number of employees, and strategic importance of the activities performed in the location
Impacts		Some potential impacts include direct damage to buildings owned by UCB and key suppliers, as well as damage to nearby roads.	A worst-case scenario could mean business interruptions if water supply is interrupted.
Financial implications		UCB may face increased operational costs due to infrastructural damage, potential increase in insurance costs, production and supply chain interruptions, and adaptation costs for building protection.	Water scarcity could have significant impact at site level, including higher operational costs, cost of tech transfer and production/supply chain interruptions in case of extreme drought.
Financial quantification in 2050	**RCP 4.5 scenario**	Deemed not material according to UCB financial risk ranking	Deemed not material according to UCB financial risk ranking
	RCP 8.5 scenario	Deemed not material according to UCB financial risk ranking	Deemed not material according to UCB financial risk ranking
Methodology		High-level screening using the Aqueduct Flood Hazard Maps tool for both medium and long term under the RCP 4.5 and RCP 8.5 scenarios was done for the 25 sites, allowing to narrow it down to 3 sites. To account for the impact on the site and its immediate surroundings, 3 measurements were obtained: • Inundation height at the exact location of the facility • Mean inundation height for a 5km buffer area around the facility • Maximum inundation height for a 5km buffer area around the facility	Screening of hydrological and meteorological drought for three key sites for both medium and long term under the RCP 4.5 and RCP 8.5 scenarios. Examples of indicators analyzed were: • total annual precipitation, • consecutive dry days, • groundwater recharge, • streamflow, • blue water production. The potential financial impact was assessed for the sites that showed a potential risk of water availability, considering factors such as water costs and insurance coverage.

	For the 3 facilities at highest risk, we collected the on-site mitigation options and planned initiatives.	
Management response	Several local responses in place (details in Risk Management section). Measures include evacuation plans, flood protection plans, and construction of underground pipes and water tanks. BREEAM/LEED certification for all new buildings or major revamping that include climate change resilience features.	Monitoring of water availability, implementation of ongoing water saving measures such as recycling systems as well as potential future measures such as the use of water tanks to collect water in more favorable periods.

b. Transition risks and opportunities

i. Hotspot analysis

The analysis of the transition risks and opportunities looked at the major climate-related changes to come in four main areas: policy and legal, technology, market, and reputation.

16 transition risks and opportunities were primarily assessed, and the seven most relevant and material ones were highlighted and rated according to their expected level of change compared to a 2020 baseline (see key and table below). The risks were qualitatively assessed by scenario in terms of likelihood, impact, velocity, and proximity. Nine countries in total have been considered for this analysis, as key locations where UCB and selected suppliers operate and/or where UCB holds significant market shares.

Legend	Degree of change from baseline under each climate scenario
	Very high
	High
	Moderate
	Low
	Uncertain

	Ranking of risks and opportunities	Category	# of countries	STEPS (2025)	SDS (2025)	STEPS (2030)	SDS (2030)	Potential impact & mitigation
1. Increased costs due to carbon pricing schemes	**1. 1 Price increase for energy and raw materials due to carbon pricing**	Policy risk	6					UCB may face increased prices in carbon-driven purchase such as energy (extraction, transformation, distribution) and raw materials (production, distribution). Mitigation requires agility in purchasing and reducing the need of carbonized energy as well as carbon intensive raw materials (e.g., shift to greener solvent).
	1.2 Pass-through carbon costs from CMOs	Policy risk	6					UCB outsources products and materials to contract manufacturing organizations (CMOs) from several countries. As CMOs are increasingly affected by carbon taxes and other climate-driven regulations, these costs could be ultimately passed through to UCB. Mitigation requires a decrease in UCB's scope 3 emissions from CMOs.
	1.3 Direct carbon cost on Scope 1 emissions	Policy risk	5					Direct carbon pricing on greenhouse gas (GHG) emissions from energy consumption (emissions trading systems [ETS], emerging carbon taxes etc.) could increase UCB's costs related to Scope 1 emissions. Mitigation requires a decrease in UCB's scope 1 emissions, e.g., using fewer fossil fuels.
2. Shift in market expectations: decreased revenues due to an increased demand for low-carbon products		Market risk/ opportunity	5					UCB may face a decrease in revenues due to a market share loss because of increased expectations from the healthcare industry for low-carbon products and operations. Indeed, the healthcare systems' carbon footprints are linked (for ~1/3rd of the footprint) to purchasing medicines from the pharmaceutical sector. Pressure

							from healthcare players is expected to reach their target emissions reductions. Mitigation requires producing less carbon-intensive products.
3. Transition from air to sea shipping	Technology risk/ opportunity	9					UCB's Air to Ocean program will help to reduce transition risks related to a high logistics carbon footprint. However, rising demand for lower-carbon shipments may increase the risk of delays, overbookings, obstruction, and loss of containers, bringing potentially significant financial impacts, along with other environmental impacts.
4. Fast transition to low-carbon processes and technologies	Policy risk	7					UCB is in a long-cycle business: the pharmaceutical industry is less agile than others because of regulatory constraints. Pharmaceutical regulatory bodies are putting many constraints in place when it comes to new technologies, including those that could help reduce the environmental footprint. Mitigation requires strong anticipation.
5. Ever-strengthening climate ambitions	Market risk	5					UCB has an ambitious carbon reduction plan and has committed to science-based targets. However, ambitions keep on strengthening among stakeholders and UCB will have to keep on adapting to meet even higher expectations.

The two risks selected for the in-depth analysis are:

- Increased costs due to carbon pricing schemes
- Shift in market expectations: decreased revenues due to an increased demand for low-carbon products

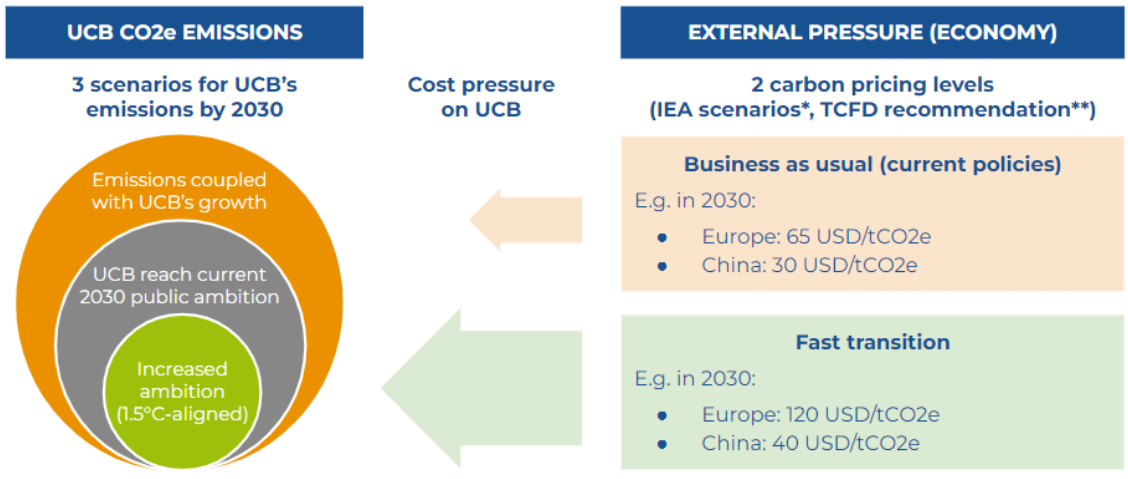
A. Increased costs due to carbon pricing schemes

The main explicit carbon pricing schemes generally in use are carbon taxes and emission trading systems (ETS). Both the number of schemes and the carbon prices are expected to increase in all scenarios according to current tendencies, especially in a fast transition to a low-carbon economy. This rise will potentially impact UCB's costs through additional direct carbon costs, resulting from UCB's direct GHG emissions, and indirect carbon costs, resulting from the suppliers' direct GHG emissions and passed on to UCB within the supply chain. This risk has been analyzed through an in-depth assessment, combining the IEA's STEPS and SDS scenarios with three possible emissions pathways for UCB:

a) **UCB's emissions grow proportionally to UCB's revenues**.
b) **'Science Based Target (SBT) well-below 2°C aligned' scenario**, where UCB's emissions meet their current SBT target: a - 38% absolute reduction of scopes 1, 2 and 3 (excluding suppliers) GHG emissions by 2030 compared to the 2015 values, and 60% of suppliers by emissions committed to SBT targets by 2025. In practice, regarding scope 1, 2, and 3 emissions (excluding suppliers), this means keeping emissions stable from 2021 onwards despite UCB's upcoming growth (through decarbonization levers) since today's emissions are already at target. Regarding the suppliers' emissions in scope 3, it means 40% of them grow proportionally to UCB's revenues from 2021 until 2030, while 60% is aligned with SBT 1.5°C pathway from 2026 to 2030.

c) The **'SBT 1.5°C aligned' scenario**, where UCB's emissions decrease in line with the short-term 1.5°C pathway (NZE) provided by the SBT initiative.

UCB's projected carbon emissions are priced in 6 scenarios



* IEA = International Energy Agency.
** 2 scenarios (worst-case vs. best-case) with significant likelihood (cf. 2022 UN statements).

UCB's direct and indirect emissions are considered per country of generation, therefore, all countries considered in UCB's carbon footprint are included in this analysis. To be conservative and representative for the upcoming years, the emissions from the category 'business travel' were adjusted to a pre-Covid-19 level (2019) as the baseline.

The European Carbon Border Adjustment Mechanism (CBAM) has not been considered, as it will not likely affect the pharmaceutical industry by 2030. In addition, different decarbonization rates are assumed for the economy/electrical grid from the countries where the emissions were generated (depending on each scenario). In each country, scope 1 and 3 emissions are assumed to decrease in line with the carbon intensity of the Gross Domestic Product, while scope 2 emissions are assumed to decrease in line with the carbon intensity of the electrical grid.

Key transition risk		
Risk		**Increased costs due to carbon pricing schemes**
Timeframe		Short (2025) and medium-term (2030)
Locations in scope		All locations that are relevant to carbon pricing and where UCB or UCB's suppliers have operations
Potential impacts		Increased explicit carbon pricing (e.g., Emissions Trading Schemes, carbon taxes) entails higher carbon costs to be paid by UCB and its suppliers in relation to their direct GHG direct emissions.
Financial implications		UCB may face increased costs: direct carbon costs linked to UCB's direct GHG emissions and indirect carbon costs linked to its suppliers' GHG emissions, passed on to UCB. Because this indirect cost is passed on to UCB through virtually any type of spending, it will both apply to CAPEX and OPEX, and eventually profitability.
Quantification in 2030	**STEPS scenario (< 3°C)**	Categorized as a "Low" financial risk according to UCB enterprise risk management ranking
	SDS scenario (< 2°C)	Categorized as a "Slight" financial risk according to UCB enterprise risk management ranking
Methodology		The projection of UCB's direct and indirect emissions (i.e. exposure) in three different pathways (emissions grow proportionally to UCB's revenues, SBT well below 2°C aligned, SBT 1.5°C aligned) was combined with the different carbon prices per location in two scenarios (IEA SDS and STEPS) (i.e. hazard) to obtain the total indirect and direct carbon cost (i.e. impact) to be paid in the future by UCB (while also considering the influence from decarbonization of the economy in each scenario).

Management response	UCB is already on an ambitious climate pathway through its commitment to the Science-Based Targets Initiative, having a 'well-below 2°C'-aligned target (cf. Health of the Planet - Overview | UCB for more details)

B. Shift in market expectations: decreased revenues due to an increased demand for low-carbon products

The healthcare sector is a major contributor to global GHG emissions, causing 4.4% of worldwide emissions. To provide context, this global health care climate footprint is equivalent to the annual greenhouse gas emissions from 514 coal-fired power plants. If the health sector were a country, it would be the fifth-largest emitter on the planet. The pharmaceutical industry alone is responsible for 12% to 33% of these healthcare emissions.

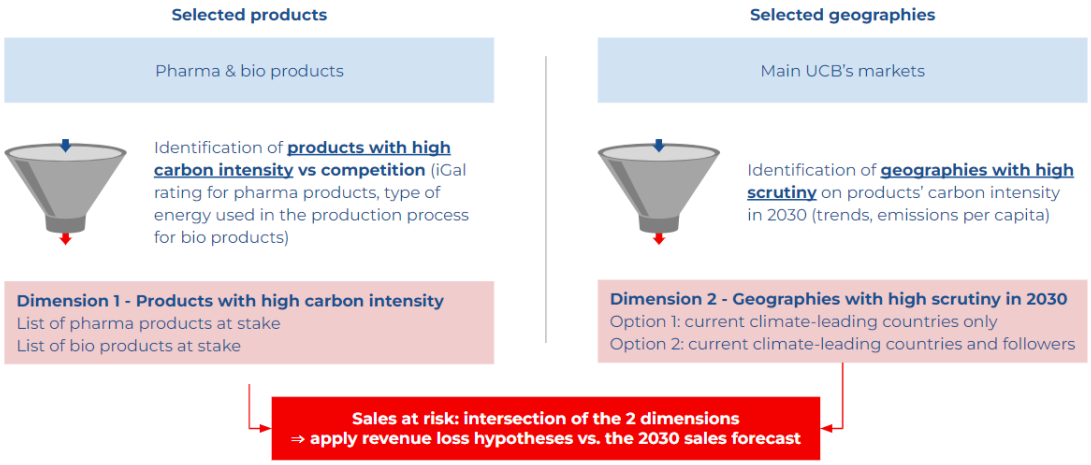
In this context, there is a growing concern from the international community, governments, regulators, and all healthcare players to decarbonize the entire healthcare supply chain. Some countries are committing to reaching a Net Zero national healthcare system (e.g., the NHS England) through the COP26 Health Program; others are including healthcare decarbonization targets in their Nationally Determined Contributions (e.g., Argentina).

More and more individual organizations, such as hospitals, pharmaceutical companies, and wholesalers are turning to 100% renewable energy. They are setting ambitious emissions reduction targets (e.g., 15 of the 20 leading pharmaceutical companies have set or committed to set 1.5°C-aligned SBTs). Others are making public commitments to seek Net Zero (e.g., many organizations have joined international initiatives, such as the 'Race to Zero' from the United Nations).

Prescribers are also becoming more and more environmentally aware and are increasingly likely to consider environmental impacts while prescribing a drug.

This increased scrutiny regarding GHG emissions in the healthcare sector may affect the way pharmaceutical companies operate and generate revenues. If UCB fails to meet the ever-increasing climate-related expectations of its stakeholders, there is a risk of the demand shifting towards low-carbon medicines produced by pharmaceutical companies aligned with the latest climate sciences (e.g., committed to 1.5°C, net zero). In this context, healthcare systems, regulating authorities, reimbursement schemes, hospitals, and prescribers could consider the product's carbon intensity as a purchasing or prescribing criterion, alongside existing criteria (e.g., efficacy, price). This could result in a decrease in UCB's market shares, hence a decrease in revenues. In the following analysis, one of the hypotheses is that the number of units sold would be the main driver impacting revenues since the drugs' prices are highly regulated in most geographical markets.

The in-depth analysis looked at UCB's products considered as the most carbon-intensive compared to the competition, either based on industry benchmarks (e.g., iGal) or based on high-level hypotheses (e.g., production process running on 100% renewables considered as a standard). In both scenarios used, i.e., the IEA's STEPS and SDS scenarios, the risk of decreased revenues is then quantified by crossing the forecast of UCB's sales in 2030 for these 'at risk' products (in terms of carbon intensity) with the geographical markets that are the most likely to increase scrutiny regarding the products' carbon intensity.



Additionally, the products identified as 'at risk' because of their carbon intensity are accounted for differently in the calculation depending on whether they can easily be substituted by alternative products (hence more likely to be replaced by low-carbon alternatives) or not (hence less sensitive to new purchasing criteria).

Key transition risk	
Risk	**Shift in market expectations: decreased revenues due to an increased demand for low-carbon products**
Timeframe	Medium-term (2030)
Locations in scope	Three main UCB markets: U.S., Europe, Japan
Potential impacts	The increased expectation for low-carbon operations and products in the healthcare sector might result in decreasing demand for UCB's products in case UCB does not meet ambitious enough climate-related targets.
Financial implications	UCB may face a loss of market share. Hence a decrease in volume sold, resulting in lower revenues, and, eventually, lower profitability.

Quantification in 2030	**STEPS scenario (< 3°C)**	Categorized as a "Slight to Moderate" financial risk according to UCB enterprise risk management ranking
	SDS scenario (< 2°C)	Categorized as a "Significant" financial risk according to UCB enterprise risk management ranking
Methodology		This assessment results from the combination of the following dimensions: the geographical markets where healthcare systems are likely to increase scrutiny on products' carbon intensity in each scenario (STEPS and SDS); the products in UCB's portfolio that are considered carbon-intensive compared to the benchmark; and the risk of facing substitution via alternative products.
Management response		UCB is acting on several levers to produce low-carbon products: increase in the share of recycled solvents for pharma products (as solvents are the main driver for product emissions); shift to further renewable energy for bioproducts (as energy consumption is one of the main drivers for product emissions); etc. (cf. the Annual Integrated report for more details). To address this risk, UCB launched the green product scorecard initiative to minimize the environmental impact of our solutions. Based on a systematic "cradle-to-grave" lifecycle analysis, this allows us to assess our impact and map opportunities for environmental footprint reductions when developing and producing solutions. Our framework was built to allow maturity growth and to be in a continuous improvement mindset. Each UCB solution will undergo the process routinely every three years to ensure we capture any new opportunity for environmental impact decrease.

3. Business resilience

The findings of the in-depth assessment in different scenarios, both for physical and transition risks and opportunities, will be integrated into the risk management and mitigation plan will be created if needed, enabling further mitigation and/or adaptation to increase business resilience.

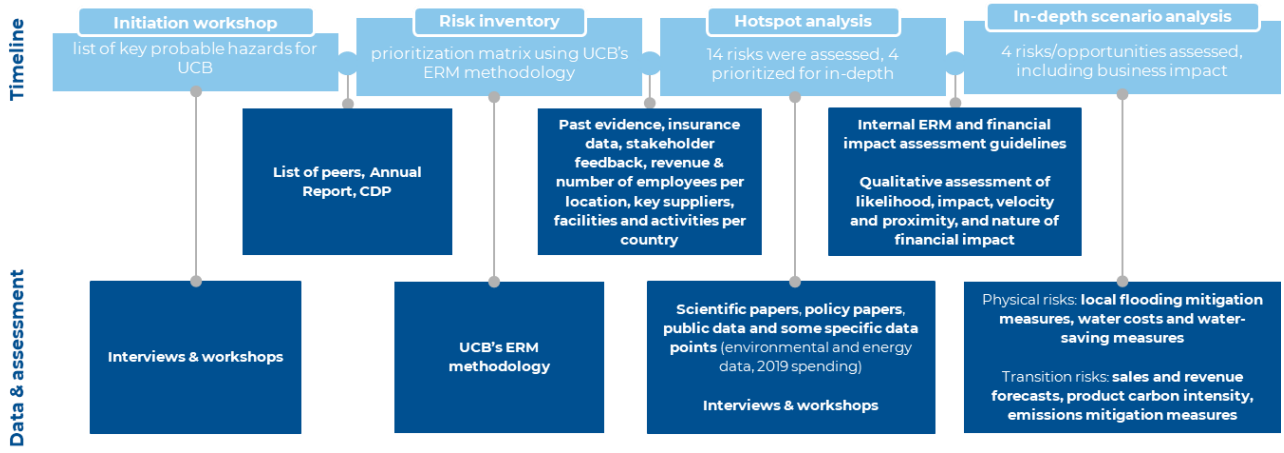
Additional references: CDP questions C2.1, C2.1a, C2.1b, C2.2, C2.2a, C2.3, C2.3a, C2.4, C2.4a, C3.1, C3.2, C3.2b, C3.3, C3.4

4. Risk management

Our overall risk identification process consisted of five general steps:

1. creation of an exhaustive (as much as possible and realistic) list of probable hazards.
2. a first round of internal stakeholder engagement and brainstorming.
3. a hotspot scenario analysis.

4. a second round of internal stakeholder engagement and insights analysis, and
5. an in-depth assessment that included an estimation of the potential financial risks of the selected most material hazards.



In the first stage, 24 physical hazards and 16 transition risks were identified and assessed based on expert judgment from South Pole and internal UCB cross-functional stakeholders, internal stakeholder workshops, and consideration of UCB's ERM framework.

The ERM (Enterprise Risk Management) framework requires the evaluation of risks based on their impact and likelihood to allow an assessment score. The impact ratings may be evaluated across three categories: financial, reputational, and affecting patient value.

From the list, seven physical and seven transition risks were assessed using scenario analysis, each for two future time horizons and under two scenarios. More information about the risks selected, time horizons, and climate scenarios can be found in the Strategy section.

Following the hotspot scenario analysis, the results were presented to key internal stakeholders and their feedback was collected and considered in the selection of the four risks (two physical risks and two transition risks) to be selected for in-depth assessment. In the following step, UCB's financial impact assessment framework was considered to score each risk and prioritize the top four with the highest potential financial impact.

The financial impact assessment took into consideration impact on revenue, impact on costs of sales and OPEX, impact on operational expenses, impact on CAPEX, impact on inventory/cash flow, and impact on market value/reputation. The risks with the highest score were 'water scarcity' and 'heavy precipitation and flooding' for physical risks and 'carbon pricing' and 'shift in demand for more low-carbon products' for transition risks. More information about the methodology and results of the in-depth assessment can be found in the Strategy section.

The scenarios used to analyze the future risks and opportunities are based on different existing and emerging regulatory requirements; please see the detailed description under the Strategy pillar.

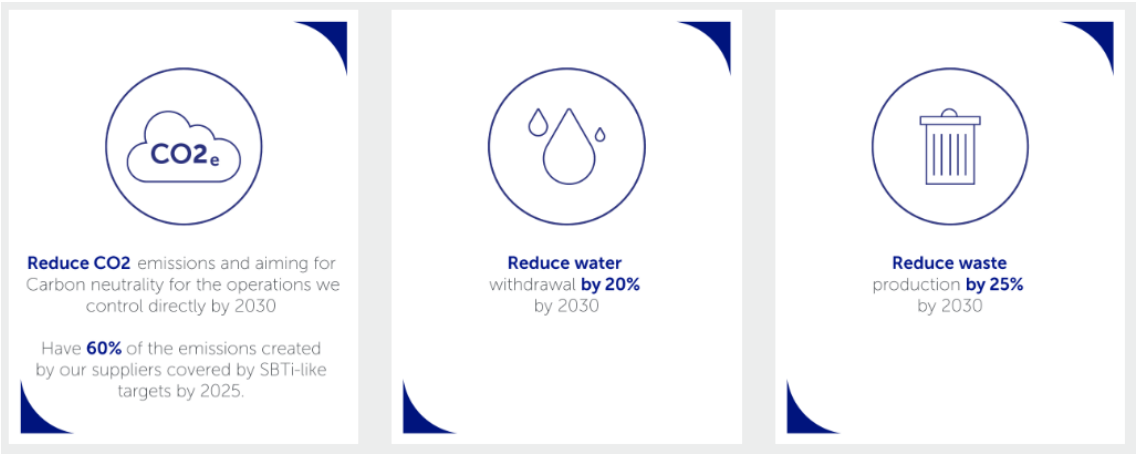
UCB uses the risk terminology introduced by the TCFD and presented in the Strategy section.

Environmental/climate risks	
Risk identified	**UCB's response/policy**
Physical risks As a result of the scenario analysis conducted, water scarcity and heavy precipitation and flooding were determined to be the risks with the highest potential material impact to UCB's operations, including offices, research labs, and key suppliers. The increase in the severity and/or frequency of these risks is projected to happen in the medium (2030) and long-term (2050) under a high emission, low mitigation scenario. To a lesser extent, UCB could also experience impacts due to an increase in the frequency and/or severity of extreme temperatures, hurricanes, hailstorms and wildfires which has not been considered as a material risk for UCB's business.	UCB has in place several measures aimed at limiting the potential impact of these key risks, as well as other natural risks, across its operations: • Insurance from natural hazards, including hailstorms, hurricanes, and heavy precipitation and flooding, covering all assets of the group (building, equipment, stocks) both for UCB and CMOs/suppliers. • Dual internal/external sourcing to produce key APIs. • An 80-90% use rate target of key plants to leave reserve capacity for unforeseen events that may cause interruption of operations at external suppliers. • Local mitigation measures to limit the impact of flooding at potentially affected facilities, including those of suppliers. These include evacuation and flood protection plans, underground tanks and pipes to stop water from flooding key buildings, and water pumps in case infiltration occurs, in addition to flood protection measures built by local authorities such as walls and dikes. • Key suppliers are requested to submit a business continuity plan addressing mitigation of climate risks. • Every new UCB building or major revamping of UCB buildings and its premises is certified with either BREEAM (EU) or LEED (rest of the world), green building certification systems that take into consideration climate resilience. **Measures to tackle the risk of water scarcity only**: • Planned implementation of a water recycling system at key facilities • Possibility to increase water purification technologies as deemed necessary
Transition risks As a result of the scenario analysis conducted, the increase in carbon pricing and the possible shift in	UCB has put in place several measures to limit the potential impact of these key risks in its operations. Additional measures are being assessed for the upcoming years.

market toward less carbon-intensive products were determined to be the risks with the highest potential material impact to UCB's operations. These risks have been analyzed in two different scenarios from the International Energy Agency, the SDS (well below 2°C) and the STEPS (well above 2°C) scenarios, to assess the potential financial impact on UCB's business (EBITDA).	**Measures to tackle the risk of carbon pricing**: • Planned decrease in Scope 1 and 2 emissions through pursuing an SBTi target, implementing production processes based on 100% renewable energy by 2030, shifting to electric vehicles for UCB car fleet, optimizing energy consumption by making our operations more energy efficient, etc. • Planned decrease in Scope 3 emissions through supplier engagement (aligned with SBTi target), a shift from air to ocean for the logistics of our raw materials and finished goods, the possibility to store and ship bio product at -40°C instead of -60°, the reduction of commuting and business travel thanks to our new ways of working, etc. • Individual objectives are defined according to the extent to which annual objectives have been met, climate target being one of UCB corporate objectives. • The CEO's individual objectives mainly represent the overall company objectives, covering both financial and extra-financial priorities including UCB climate ambition. **Measures to tackle the market shift towards less carbon-intensive products**: • UCB Green Product Scorecard initiative is based on a systematic" Cradle-to-grave" lifecycle analysis, allowing us to assess impacts and hotspots, and map opportunities for environmental footprint reductions/avoidance from development to commercialization. For example, increasing the usage of energy generated from renewable sources, either produced at UCB's sites or purchased (on a percentage basis), increasing the % of recycled solvents where possible and the use of greener solvents, and intensifying supplier engagement regarding emissions reduction throughout the production value chain. • Increased number of bioproducts into our products portfolio and exploration of gene therapy, which are generally less carbon intensive than pharmaceutical products when considering the patient treatment as reference unit.

Additional references: CDP questions C2.1, C2.1a, C2.2.

5. Metrics and targets



More info on UCB.com: Health of the Planet - Overview | UCB

Additional references: CDP questions C4.1, C4.1a, C4.2, C4.2a, C4.3, C4.3a, C4.3b, C5.2, C6.1, C6.2, C6.3 *and to the environmental sustainability chapter in our Integrated Annual Report.*

Years to come

UCB will incorporate the findings of the scenario analysis into its risk management system, long-term strategy, and risk mitigation planning. We will continue to assess and identify any climate risks and opportunities in the future to bring further transparency and alignment to TCFD climate-related disclosure.