

# Appendix

## Appendix 1 – Governance

### Our sustainability governance – additional information

This overview table provides summary information about key bodies governing and implementing sustainability and climate at UBS, with a particular focus on the Board of Directors (the BoD) and Group Executive Board (the GEB) levels. At the level of the business divisions (BDs) and Group Functions, dedicated management bodies consider sustainability and climate matters as applicable to the (business) focus / mandate of the respective division or function. Pertinent aspects arising from these discussions are reported into the GEB and BoD directly (or via, for example, the Sustainability and Climate Task Force).

› Refer to the “Governance” section of this report for the overarching description of our firm’s sustainability governance

Governance body	Lead and other membership information	Sustainability / climate agenda frequency	Purpose and responsibilities related to sustainability- and climate-related issues	Topics considered in 2022
<b>BoD Corporate Culture and Responsibility Committee (the CCRC)</b>	Chairman of UBS Group AG Permanent guests: Group CEO, Group Chief Risk Officer (the GCRO), GEB lead for sustainability and impact, Chief Sustainability Officer (the CSO), Group General Counsel	Quarterly	<ul style="list-style-type: none"> <li>Supports the BoD in its duties to safeguard and advance the Group’s reputation for responsible and sustainable conduct.</li> <li>Oversees the firm’s sustainability and impact strategy and activities and approves Group-wide sustainability and impact objectives.</li> <li>Reviews the annual Sustainability Report and proposes it to the BoD of UBS Group AG for approval.</li> </ul>	<ul style="list-style-type: none"> <li>Sustainability and impact governance, strategy, and objectives.</li> <li>Net-zero commitment and associated implementation steps.</li> <li>Climate risk program.</li> <li>Regulatory and governmental developments pertaining to sustainability and finance.</li> <li>Sustainability and climate disclosures (including external assurance thereof).</li> <li>Sustainable finance.</li> <li>Sustainability-related memberships.</li> </ul>
<b>BoD Risk Committee (the RC)</b>	Non-executive director	At least semi-annually	<ul style="list-style-type: none"> <li>Oversees and supports the BoD in fulfilling its duty to set and supervise an appropriate risk management and control framework.</li> <li>Considers the progress of UBS’s climate risk program, jointly with the CCRC.</li> </ul>	<ul style="list-style-type: none"> <li>Regulatory and governmental developments pertaining to sustainability and finance (jointly with the CCRC).</li> <li>Climate risk program (jointly with the CCRC).</li> <li>Biodiversity (jointly with the CCRC).</li> <li>Human rights (jointly with the CCRC).</li> </ul>
<b>BoD Audit Committee (the AC)</b>	Non-executive director	At least semi-annually	<ul style="list-style-type: none"> <li>Provides oversight of financial reporting and internal controls over financial reporting.</li> <li>Provides oversight of the effectiveness of the external and internal audit functions, and the effectiveness of whistleblowing procedures.</li> </ul>	<ul style="list-style-type: none"> <li>Sustainability and climate disclosures (jointly with the CCRC).</li> <li>ESG (environmental, social and governance) metrics and control framework.</li> </ul>
<b>BoD Compensation Committee</b>	Non-executive director	Annually	<ul style="list-style-type: none"> <li>Supports the BoD in its duties to set guidelines on compensation and benefits.</li> <li>Approves the total compensation for the Chairman and the non-independent BoD members.</li> </ul>	<ul style="list-style-type: none"> <li>ESG in compensation.</li> </ul>
<b>GEB</b>	Group CEO	At least quarterly	<ul style="list-style-type: none"> <li>Reviews the Group’s sustainability and impact strategy and related objectives, as well as proposing strategy and objectives to the CCRC.</li> </ul>	<ul style="list-style-type: none"> <li>Sustainability and impact objectives.</li> <li>Net-zero commitment and associated implementation steps.</li> <li>Climate action plan.</li> <li>ESG data strategy.</li> </ul>

Governance body	Lead and other membership information	Sustainability / climate agenda frequency	Purpose and responsibilities related to sustainability- and climate-related issues	Topics considered in 2022
			<ul style="list-style-type: none"> <li>– Signs off on divisional sustainability objectives, in alignment with the GEB Lead for Sustainability and Impact.</li> <li>– Ensures firm-wide execution of the firm's climate strategy, including its net-zero commitment.</li> <li>– Sets the overall risk appetite for the firm and resolves overarching matters relating to sustainability and climate risk (SCR).</li> </ul>	
<b>Group Sustainability and Impact (GSI)</b>	GEB Lead for Sustainability and Impact	Ongoing	<ul style="list-style-type: none"> <li>– Led by the GEB Lead for Sustainability and Impact, who has the responsibility for driving the firm's sustainability and impact strategy, in agreement with fellow GEB members.</li> <li>– Supports the GEB Lead for Sustainability and Impact with carrying out her responsibilities.</li> <li>– Consists of the Chief Sustainability and Social Impact offices, headed by the CSO and the Head Social Impact, respectively, with the CSO responsible for driving the implementation of the Group-wide sustainability and impact strategy, and the Head Social Impact responsible for driving and implementing the firm's social impact strategy.</li> </ul>	<ul style="list-style-type: none"> <li>– Implementation of sustainability and impact strategy.</li> <li>– Climate action plan.</li> <li>– Net zero.</li> <li>– Inclusive growth.</li> <li>– Nature and biodiversity.</li> <li>– ESG data architecture.</li> <li>–</li> </ul>
<b>Sustainability and Climate Task Force</b>	GEB Lead for Sustainability and Impact CSO	Quarterly	<ul style="list-style-type: none"> <li>– Oversees implementation of the Climate Action Plan, including the integration of climate-related regulation into business operations.</li> <li>– Oversees the Net-Zero Program, which is coordinated by the Net-Zero Steering Group.</li> <li>– Is supported by the Sustainability and Climate Implementation Group, which (monthly) brings together the key experts and practitioners from the business divisions and Group Functions.</li> </ul>	<ul style="list-style-type: none"> <li>– Establishment and implementation orchestration of the firm's climate action plan, further integrating the TCFD recommendations and other climate-related matters throughout the Group.</li> </ul>
<b>Group Risk Control (GRC)</b>	GCRO	Ongoing	<ul style="list-style-type: none"> <li>– Develops and implements principles and an appropriate independent control framework for SCR within the firm and is responsible for its integration into the firm's overall risk management and risk appetite frameworks.</li> <li>– Oversees SCR activities, including the climate risk program.</li> </ul>	<ul style="list-style-type: none"> <li>– Continued development of the climate risk program and the SCR policy framework.</li> </ul>
<b>ESG Disclosure Forum</b>	Sustainability CFO	Every six weeks	<ul style="list-style-type: none"> <li>– Identification, oversight and coordination of sustainability-related reporting and disclosure requirements.</li> </ul>	<ul style="list-style-type: none"> <li>– Review and analysis of forthcoming / evolving sustainability disclosure regulations and their pertinence to the firm.</li> </ul>
<b>ESG Data and Methodology Forum</b>	ESG Chief Data Officer (Chief Sustainability Office)	Monthly	<ul style="list-style-type: none"> <li>– Develops and implements UBS's ESG data strategy in line with the firm's overall data strategy.</li> </ul>	<ul style="list-style-type: none"> <li>– Adoption of ESG data and metrics governance.</li> <li>– Implementation of group-wide market data sourcing and mastering strategy.</li> <li>– Development of high-quality and re-usable ESG data sets.</li> <li>– Definition of a strategic ESG data &amp; reporting architecture.</li> </ul>
<b>Sustainability and Climate Risk Program</b>	CRO for Sustainability	Ongoing	<ul style="list-style-type: none"> <li>– Integrates sustainability and climate risks into the firm's risk management framework and standard processes.</li> </ul>	<ul style="list-style-type: none"> <li>– Further implementation of a multi-year transformation initiative to focus on delivering to regulatory expectations of climate risk into risk management and stress-testing frameworks.</li> </ul>
<b>Nature Working Group</b>	Head External Engagement (Chief Sustainability Office)	Every three weeks	<ul style="list-style-type: none"> <li>– Considers nature / biodiversity policy, regulatory and market developments.</li> <li>– Supports the business divisions and Group Functions in developing nature- and biodiversity-related activities.</li> </ul>	<ul style="list-style-type: none"> <li>– Update of 2021 Statement on Nature.</li> <li>– Beta releases of the Taskforce on Nature-related Financial Disclosures.</li> </ul>

Governance body	Lead and other membership information	Sustainability / climate agenda frequency	Purpose and responsibilities related to sustainability- and climate-related issues	Topics considered in 2022
				<ul style="list-style-type: none"> <li>– Policy, regulatory and market developments connected to the COP 15 Biodiversity meeting.</li> </ul>
<b>Sustainable Finance Group</b>	CSO Convened by Lead Sustainable Finance Group (Chief Sustainability Office)	Monthly	<ul style="list-style-type: none"> <li>– Discusses sustainable finance activities and initiatives across the firm, bringing together key sustainable finance and investing leads from the business divisions.</li> <li>– Supports and orchestrates development of cross-divisional sustainable finance business initiatives, as well as enabling capabilities.</li> </ul>	<ul style="list-style-type: none"> <li>– Sustainable finance market, industry and regulatory key trends and developments.</li> <li>– Sustainable finance business priorities 2022 and objectives 2023.</li> <li>– Sustainable finance product guidelines and framework.</li> <li>– Commercial themes and initiatives.</li> <li>– Sustainable finance product / solutions offering.</li> <li>– Sustainable finance metrics and reporting (internal / external).</li> <li>– Sustainability training.</li> </ul>
<b>Sustainability Advisory Group</b>	CSO Convened by Head External Engagement (Chief Sustainability Office)	Monthly	<ul style="list-style-type: none"> <li>– Discusses sustainability initiatives across the firm, bringing together key sustainability leads from Group Functions.</li> </ul>	<ul style="list-style-type: none"> <li>– Risk frameworks for sustainable finance.</li> <li>– Partnerships for key sustainability related activities (e.g., net zero).</li> <li>– Communications activity and other stakeholder engagement.</li> </ul>
<b>CDIO Management Team</b>	GEB Lead for CDIO	Semi-annually at least	<ul style="list-style-type: none"> <li>– Oversees CDIO strategy for operational sustainability.</li> <li>– Reviews environmental performance of the firm.</li> <li>– Signs off on operational sustainability objectives and targets.</li> </ul>	<ul style="list-style-type: none"> <li>– Sustainability objectives for 2023.</li> <li>– ISO 14001 external audit results.</li> <li>– Climate action plan.</li> </ul>
<b>GCS Management Forum</b>	Head of CDIO Group Corporate Services (GCS)	Quarterly	<ul style="list-style-type: none"> <li>– Oversees GCS strategy for operational sustainability.</li> <li>– Reviews environmental performance of the firm.</li> <li>– Proposes operational sustainability objectives and targets for sign-off to the CDIO management team.</li> </ul>	<ul style="list-style-type: none"> <li>– Operational action plans for the individual global environmental goals.</li> <li>– Sustainability objectives for 2023.</li> <li>– Result from ISO 14001 external audit.</li> <li>– Climate action plan.</li> </ul>
<b>Sustainable Finance Forum Personal &amp; Corporate Banking (P&amp;C) / Wealth Management Switzerland (WMCH)</b>	Chief Operating Officer P&C and Region Switzerland jointly with the Chief Risk Officer P&C	Quarterly	<ul style="list-style-type: none"> <li>– Oversees and facilitates the sustainability strategy and its implementation across the Personal &amp; Corporate Banking segments and Wealth Management Switzerland, in alignment with the goals and ambitions of the Group.</li> <li>– Reviews supporting strategic sustainability partnerships and collaborations.</li> <li>– Fosters alignment and collaboration across segments and aligned functions.</li> </ul>	<ul style="list-style-type: none"> <li>– Net zero.</li> <li>– Sustainable lending operating model.</li> </ul>
<b>AM SI Prioritization Forum</b>	Head of Sustainable Investing, Executive Team functional heads	Quarterly, ad-hoc as required	<ul style="list-style-type: none"> <li>– Steers and guides the SI strategy program within AM.</li> <li>– Sets key priorities, direction and key decisions to be adhered to by the SI program.</li> <li>– Provides guidance on strategic alignment of ESG-related regulatory requirements.</li> </ul>	<ul style="list-style-type: none"> <li>– Net zero.</li> <li>– Product shelf.</li> <li>– Impact capability.</li> <li>– Client reporting.</li> <li>– Regulatory disclosure.</li> </ul>
<b>Asset Management (AM) Stewardship Committee</b>	Head of Investments	Quarterly, ad-hoc as required	<ul style="list-style-type: none"> <li>– Provides oversight of the proxy voting standards / process and corporate governance practices in accordance with the Asset Management proxy voting policy and procedures.</li> </ul>	<ul style="list-style-type: none"> <li>– Approved and resolved where needed, proxy votes proposed to deviate from UBS Proxy Voting policy guidelines.</li> </ul>
<b>AM SI Methodology Forum</b>	Head of Sustainable Investing	Quarterly, ad-hoc as required	<ul style="list-style-type: none"> <li>– Provides oversight of methodology / investment process criteria applied in the Sustainable Investing framework (including exclusions, ESG integration, sustainable focused and impact offering) across investment areas.</li> </ul>	<ul style="list-style-type: none"> <li>– Regulatory investment process criteria.</li> <li>– Policy updates.</li> <li>– Net zero and other frameworks / methodologies.</li> </ul>

Governance body	Lead and other membership information	Sustainability / climate agenda frequency	Purpose and responsibilities related to sustainability- and climate-related issues	Topics considered in 2022
<b>Global Wealth Management (GWM) SI/II Forum</b>	Chief Investment Office (CIO)	Quarterly	<ul style="list-style-type: none"> <li>– Drive the Global Wealth Management SI/II franchise.</li> <li>– Acknowledge ambitions.</li> </ul>	<ul style="list-style-type: none"> <li>– Provided input into various aspects of the franchise, including products and strategy.</li> <li>– Ambition setting.</li> </ul>
<b>GWM Sustainability Scores Methodology Board</b>	CIO	At least annually	<ul style="list-style-type: none"> <li>– Discuss and decide on material changes to the methodology underlying the CIO sustainability scores.</li> </ul>	<ul style="list-style-type: none"> <li>– Development of SDG-alignment scores.</li> <li>– Further integration of climate-related data in CIO sustainability scores.</li> </ul>
<b>Investment Bank (IB) Management Team</b>	President Investment Bank	At least quarterly	<ul style="list-style-type: none"> <li>– Reviews the Investment Bank's sustainability strategy and related objectives, including DE&amp;I, climate, etc.</li> <li>– Monitors the Investment Bank's progress against its sustainability strategy and related objectives.</li> <li>– Monitors the Investment Bank's execution of the firm's overall climate strategy, including the net-zero commitment.</li> </ul>	<ul style="list-style-type: none"> <li>– Diversity, equity and inclusion.</li> <li>– Sustainability strategy and progress.</li> <li>– Net-zero commitment and associated implementation steps.</li> <li>– Changes to SCR policy.</li> <li>– Regulatory developments pertaining to sustainability and finance.</li> <li>– Non-financial risks in relation to Sustainable Finance.</li> <li>– Sustainable finance.</li> <li>– Training and employee awareness regarding sustainability and sustainable finance.</li> </ul>

# Appendix 2 – Strategy

We are committed to continuously improving and enhancing UBS’s sustainability performance. This appendix provides further details about the strategic components set out in the “Strategy” section of this report.

## Helping to achieve our strategy by working with key climate- and nature-related organizations

Initiative	UBS role / activity	Key outcome of initiative in 2022	UBS contribution / commitment
<b>Task Force on Climate-Related Financial Disclosures (the TCFD)</b>	Member of the TCFD, which includes 31 members from financial and non-financial companies and is supported by over 4,000 organizations from more than 100 countries.	Publication of 2022 TCFD status report marking five years since publication of TCFD recommendations. Over 3,900 organizations have pledged support for the TCFD with a combined market capitalization of USD 26 trillion. Response by the TCFD to the rules proposed by the SEC to enhance and standardize climate-related disclosures for investors.	Contributed to the activities of the TCFD, including its 2022 status report.
<b>Taskforce on Nature-related Financial Disclosures (the TNFD)</b>	Member of the TNFD, which includes 40 members from financial and non-financial companies.	Beta versions of TNFD risk management and disclosure framework including first draft sector specific guidance for financial institutions.	Contributed to the formulation of the first set of TNFD recommendations and chaired the financial-sector-specific working group of the TNFD.
<b>Net Zero Asset Managers initiative (the NZAMI)</b>	Founding member of the NZAMI, which includes 291 asset managers managing over USD 66 trillion of assets under management (AuM).	Completed first round of annual disclosure of signatories’ approach and progress on net zero investing using the CDP framework. Initiative increased to 301 signatories with USD 59 trillion assets under management (AuM) by year end.	Among the first round of asset managers to complete annual disclosure requirement. Target to align 20% of Asset Management’s AuM to be managed in line with net zero.
<b>Net-Zero Banking Alliance (the NZBA)</b>	Founding member of the NZBA, which includes 122 banks committed to aligning their lending and investment portfolios with net-zero emissions by 2050.	Developed guidelines, frameworks, methodologies and timelines for net-zero implementation in the global banking sector.	Active participant in working groups on sectoral target-setting, data and methodologies, and financing and engagement. Committed to publishing ambitious intermediate targets for priority sectors within 18 months of signing, and for all, or a substantial majority of, the carbon-intensive sectors, where data and methodologies allow within 36 months of signing, and to regularly reviewing targets in line with NZBA guidelines.
<b>Glasgow Financial Alliance for Net Zero (the GFANZ)</b>	Founding member of the GFANZ, which includes 550+ members from all industries in the financial sector, mobilized around common goal of supporting net zero transition.	Issuance of first progress report and voluntary set of recommendations and guidance for financial institutions to use when developing and implementing credible, high-ambition strategies for achieving net zero. Ongoing advocacy for credible economy-wide targets and pathways, as well as supporting policies, to drive net zero transition.	Active involvement in working groups, including those on public policy, portfolio alignment and financial-sector transition plans.
<b>Institute of International Finance (the IIF) Sustainable Finance Working Group (the SFWG)</b>	Chair and member of the SFWG catalyzing work by the IIF on sustainable finance for its 400 financial-sector corporate members from 60 countries.	Produced two major policy reports. The first, “Integrity through Alignment: A 2022 Roadmap for Global Standards and Market-led Approaches in Sustainable Finance” was the second in a series exploring the need for further alignment on sustainable finance policy and regulatory approaches globally. The second, “Navigating Climate Headwinds,” summarized the experiences of more than 20 banks across eight jurisdictions with regulatory climate-risk scenario analysis exercises and provided recommendations on how to take forward regulatory and supervisory activity. Initiated a series of transition finance and transition planning workshops to share experiences among IIF member firms and policymakers and regulators globally. Initiated annual Wolfsberg Forum for Sustainable Finance (WFSF).	Chair of the SFWG and its working program providing leadership and steering to the IIF activities. UBS helped found and hosted WFSF at its Wolfsberg UBS Center for Education and Dialogue.

<b>Partnership for Carbon Accounting Financials (the PCAF)</b>	Member of PCAF, which is a global partnership of over 340 financial institutions.	Working together with all members to develop and implement common standards for the accounting, reporting and disclosure of GHG emissions associated with financial institutions' lending and investing activities.  Publication, in December 2022, of the second version of the Global GHG Accounting and Reporting standard for the financial industry.	Committed to measuring and disclosing the GHG emissions associated with our lending and investing activities in accordance with PCAF standards.
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## Our approach to sustainable finance – additional information

### Our investing clients and client assets

In our wealth management business, it has been our long-standing view that sustainable investing strategies look beyond environmental, social and governance (ESG) integration. Thus, integrating material ESG information into investment analysis and decisions is increasingly seen as a requirement for all investment management. Exclusions, ESG integration and stewardship are a set of effective tools that can be incorporated not only in sustainable but also conventional investment strategies; however, on their own none of these tools are sufficient to determine a strategy as being sustainable or impact investing.

We have identified six sustainability topics that encompass the major challenges that both impact and are impacted by corporations and governments:

- pollution and waste;
- climate change;
- water;
- people;
- products and services; and
- governance.

These topics are selected on the basis of industry best practices, relevance to company financial outcomes, data availability and reliability, and client feedback on the issues they care most about. For investors seeking to build a sustainable investment portfolio, we recommend looking for companies that do well at managing these topics. Five of the topics (pollution and waste, climate change, water, people, and governance) focus on how well companies manage these issues within their operations and, therefore, reflect the company's operational footprint. The sixth topic (products and services) focuses on whether the company's offering and its supply chain management address sustainability challenges directly, and therefore reflects a more thematic exposure (e.g., an electric vehicle company would be expected to score highly for products and services, but may not necessarily score well for climate change, given its operations around battery production and life cycle management).

The six-topic framework is designed to offer a more simplified and targeted approach to sustainability challenges, and specifically to inform the decisions of private investors. They represent universal sustainability challenges, although the priority of each topic may differ across industries. Additionally, the companies that manage these topics well are not necessarily those with the least-adverse environmental or social impact. In fact, sectors with the greatest exposure to sustainability risk factors often have a greater imperative (regulatory or reputation-driven) to work to minimize their negative impact.

UBS uses these topics to score companies and to provide targeted advice to private clients based on their stated sustainability preferences. For example, when considering corporate financial information and regional and sectoral drivers, investors can use the sustainability scores to help identify potential ESG-related risks or opportunities that were not apparent from their financial analysis. Investors could also use the scores to assess the sustainability profile of their portfolios so as to better understand their exposure to potential sustainability risks and opportunities, as well as to evaluate whether their investments are aligned with their personal values and interests. UBS also sources indicators of whether companies are involved in a range of activities, including environmental ones, such as use of genetically modified organisms, that some investors may consider unacceptable in a sustainable investing portfolio and hence would like to exclude.

# Supporting our climate strategy – our climate-related materiality assessment

## Methodology for assessing climate opportunities

Considerations related to climate change are increasingly reflected in firms' business planning and operations. Climate-related risks represent financial risks both for UBS itself, as well as for our diversified client base. At the same time, financing and investing in technological, industrial and/or business model innovation aimed at addressing or avoiding the effects from worsening climate change represent commercial opportunities for financial firms such as UBS.

As an example, supporting the global economy's transition to a net-zero state by 2050 will require vast amounts of investment and financing, which banks can help allocate to effective and efficient uses in this context. To quantify this opportunity, we can look to the United Nations Framework Convention on Climate Change (the UNFCCC). It was reiterated during its 27th Conference of the Parties (COP 27) in 2022 that "about USD 4 trillion per year needs to be invested in renewable energy up until 2030 to be able to reach net-zero emissions by 2050 and that, furthermore, the global transformation to a low-carbon economy is expected to require investment of at least USD 4 trillion to USD 6 trillion per year."<sup>1</sup>

As elaborated on in further detail below, for UBS, given its capital-light business model, the largest commercial opportunities lie in the climate-related investment space, while essential enablers for all climate-related business initiatives are strong research, data and analytics foundations that support clients' and our own understanding of key trends. We derive these conclusions from a systematic approach aimed at better understanding UBS's future opportunities around climate. On an annual basis, and in line with the Task Force on Climate-related Financial Disclosures (the TCFD)'s recommendations (as set out in the Strategy section of the TCFD recommendations), we are assessing potentially relevant climate-related opportunities for UBS, encompassing commercial products and services, social finance, resource efficiency and energy consumption, operational resilience, as well as green funding.

In doing so, we follow a two-step approach: i) identifying relevant opportunities; and ii) assessing their relative materiality for the Group over the short, medium and longer terms. It is important to note that sustainability overall, and climate specifically, are continuously evolving topics, for example in terms of applicable political and regulatory frameworks, as well as client and market dynamics, implying that our annual assessment always represents a point-in-time analysis and needs to undergo continued challenge and reviews, so as to consistently reflect an accurate representation of our opportunity space in climate.

In the following sections we describe the individual opportunities we have identified across four distinct areas of our business.

## Commercial products and services

The starting point for identifying commercially relevant climate-related business opportunities is UBS's annual process to formulate sustainable finance ambitions for each of its four business divisions. This ensures relevant opportunities are systematically screened and selected. In the process, external research and publications are systematically consulted, as are activities among UBS's key peers in order to ensure that the latest client, market, industry and regulatory trends are appropriately reflected. We identify climate-related business opportunities as those that directly or indirectly contribute to one or more of three areas: climate mitigation, climate adaptation or climate transition.

Individual climate-relevant products and services are organized into dedicated categories<sup>1</sup>. To ensure sufficient granularity for our survey-based, qualitative materiality assessment by an internal panel of sustainable finance experts, we then break these main categories down into 11 subcategories, each representing a coherent set of related products and services. Our expert panel then assesses the expected materiality of the individual sub-

categories, as well as the time horizon over which these are expected to start contributing materially to UBS's business outcomes. Materiality is hereby assessed along three equally weighted dimensions: i) revenue potential, ii) strategic relevance and iii) the impact on the environment and stakeholders ("double materiality").

The assessment is done in a qualitative manner based on expert judgment in order to take account of the inherent difficulties involved in making more precise and/or quantified assessments on future commercial developments, in

<sup>1</sup> Based on information from the UNFCCC, see [https://unfccc.int/sites/default/files/resource/cma2022\\_L21\\_revised\\_adv.pdf](https://unfccc.int/sites/default/files/resource/cma2022_L21_revised_adv.pdf)

particular in an area such as climate, where regulatory and policy frameworks, as well as market conventions and industry trends, are still subject to considerable change and evolution. It is therefore imperative that we regularly review, reiterate and report on these assessments so as to ensure continuous relevance of the reported results. We have identified below the commercial product and services categories for the assessment:

#### Climate-related investment products

These products include for example our climate-aware, low-carbon and Paris-aligned funds and ETFs, carbon-referencing structured products and dedicated climate-focused investment modules. We also see opportunities within private-market investment strategies related to climate mitigation, such as battery storage and cold storage.

#### Carbon-related financial services and products

These include supporting clients in different business lines in identifying and assessing opportunities related to carbon credits (in both compliance and voluntary markets).

#### Climate-related financing products and solutions

These include green balance-sheet lending to corporate and private clients, structuring and underwriting green bonds for corporate and sovereign issuers, and supporting and financing innovative climate start-ups, as well as green infrastructure finance (e.g., renewable energy).

#### Advice on strategic climate opportunities

This includes corporate advisory work through the incorporation of climate factors, for example in valuation and analysis, and, more specifically, advising on transactions where climate considerations are clearly identifiable as part of a transaction rationale from the point of view of either an acquirer or a target company.

#### Thematic research

This includes climate-related in-depth research and thought leadership work, looking across and delving into relevant developments in the real economy and various economic sectors, the financial industry and financial markets, as well as scientific research. As a highly dynamic topic, climate-related research plays a key role in keeping our clients and ourselves on top of relevant developments and key trends.

#### Data analytics and metrics

These include data-driven analytical tools available in various business lines, which are being continuously developed and further refined to cover in more depth and breadth relevant sustainability- and climate-related aspects. Examples of application include the portfolio management process, quantitative modeling, climate exposure analytics within client reporting and data-powered strategic insights work.

#### Platforms

These include innovative platform solutions enabling clients to gain access to climate-related products, such as green mortgages and, in the future, voluntary carbon credits. Such platform solutions enable UBS to scale and achieve impact beyond some of our own operational limitations (e.g., balance sheet, geographical reach, own product shelf).

#### Philanthropy Services and UBS Optimus Foundation

In addition to our commercial offering, our clients have access to solutions helping them realize their philanthropy goals, including climate-related ones. Through our Philanthropy Services teams, we provide grants and social finance investments to climate-related projects under the UBS Optimus Foundation network's environment and climate portfolio of work. The UBS Optimus Foundation network's environmental and climate strategy focuses on two pillars, "Sustainable Land Use" and "Coastal and Marine Ecosystems", and guides the identification and selection of potential opportunities. Our program director for environment and climate assesses and selects these opportunities in terms of their fit with the UBS Optimus Foundation network's environment and climate strategy, the quality of the organization's team and track record, and potential for scale, as well as for expected results in key impact areas, including climate change mitigation efforts (we already actively monitor the share of portfolio assets being allocated to this) and climate change adaptation. They are then reviewed and approved by a senior-level approval committee. Experts from our Philanthropy Services and UBS Optimus Foundation teams provide a summary assessment of the materiality of this portfolio of projects, which is then included in the overall assessment. The following category represents our Philanthropy Services and UBS Optimus Foundation in the assessment:

#### Social Impact

This includes climate-related philanthropy activities orchestrated by our Social Impact teams.

<sup>1</sup> To guide this assessment, we have used the definition for materiality as provided by the Global Reporting Initiative (the GRI).



## Own operations

UBS is committed to reducing its operational impact on the environment and has set clear reduction targets for resource use, as well as formulating ambitious net-zero commitments. Experts from UBS's Group Corporate Services team, responsible for managing UBS's operational footprint, have assessed the materiality of opportunities stemming from efforts in this area. These opportunities can be grouped into three distinct categories: resilience, energy consumption and resource efficiency.

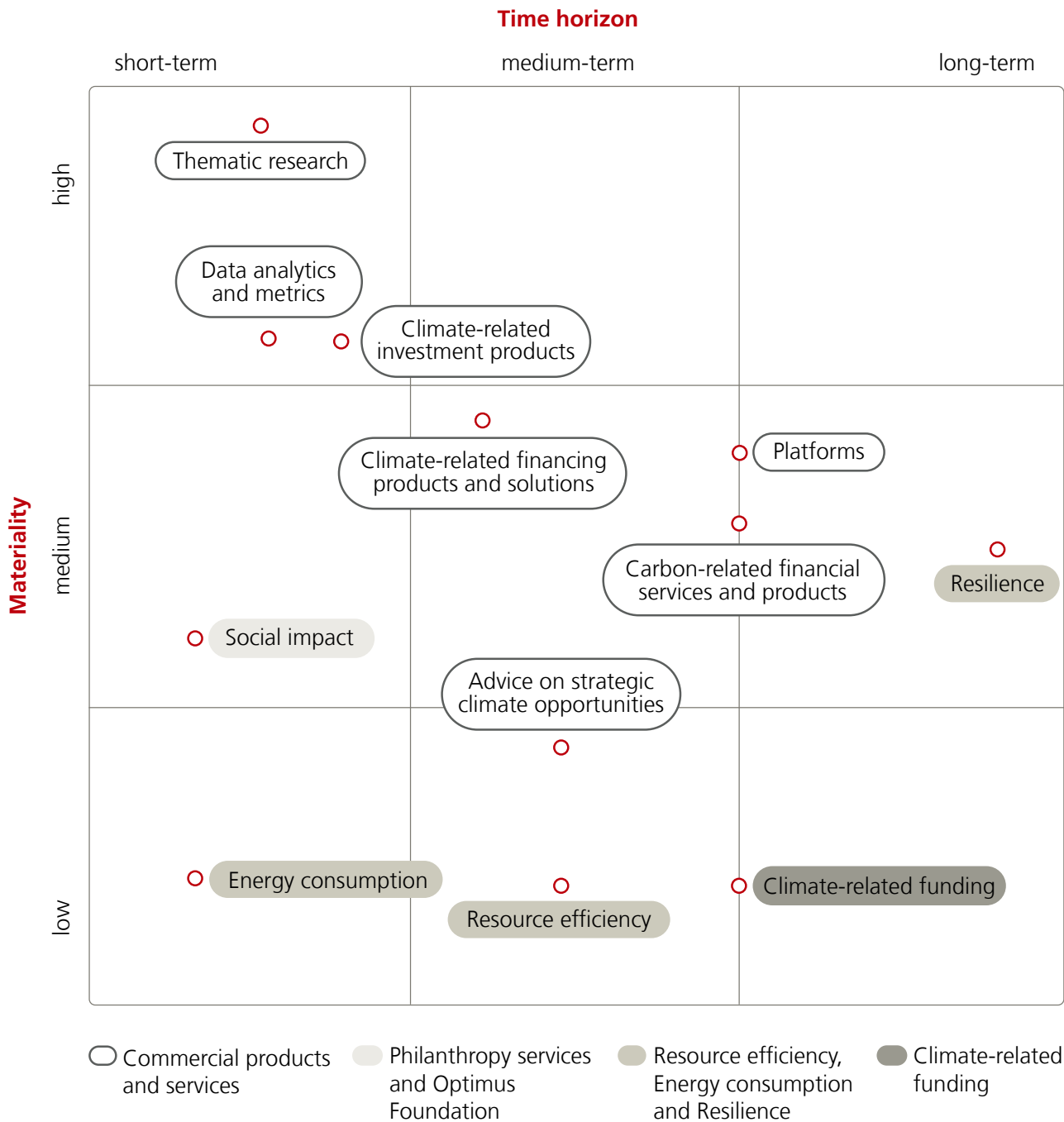
## Climate-related funding

UBS, spearheaded by Group Treasury in partnership with relevant business lines, is continually assessing new opportunities for climate-related funding that could contribute to expansion of our investor base or achieving favorable funding costs. As part of this assessment, experts from Group Treasury reviewed the materiality of opportunities for funding, such as green or sustainability-linked bonds.

- › Refer to the **"Strategy"** section of this report for more details about our sustainable and climate finance product offering and achievements in 2022
- › Refer to our Green Funding annual investor report, available at [ubs.com/greenbonds](https://ubs.com/greenbonds)

## 2022 climate-related opportunities materiality results

The comprehensive results for UBS from the different expert assessments are displayed in the infographic below, placing individual categories within low / medium / high materiality and short- / medium- / long-term time-horizon segments. Categories are displayed on a relative scale, with the highest relative degree of materiality seen for thematic research, data analytics and metrics as key enablers for a wide range of other business opportunities with clients. Climate-related investment products are the highest-ranked immediate commercial product opportunity, while resilience is seen as the most important operational opportunity regarding climate matters.



### Methodology for assessing climate-driven risks

Climate-related risks are driven from either changing climate conditions (physical risk) or from efforts to mitigate the effects of climate change (transition risk). These climate risk drivers affect banks, the financial system, and the broader economy through both micro- and macroeconomic channels. Underpinning UBS's materiality-driven approach to managing climate-related risks, the firm undertakes an assessment of how climate-driven risks may result in material impacts (e.g., credit losses or reputational incidences resulting in lost revenues), given UBS's own specific product footprint. The assessment considers geographic, jurisdictional, and sectoral differentiating factors as well as the full range of climate-related time horizons. The methodology continues to improve as data quality and understanding of transmission channels improve with time.

On an annual basis, the sustainability and climate risk (SCR) unit coordinates a systematic materiality assessment of climate-related risks in accordance with the ISO-14001 environmental management standard. Based on industry collaboration, regulatory guidance, and internal subject matter expertise, ratings are agreed between the SCR unit and respective business division representatives, covering:

- (i) granular definition of transmission channels; and
- (ii) science- and business-based qualitative ratings of climate-driven risks.

## Risk rating process

The climate-driven risk assessment, resulting in a risk rating (shown on the Y-axis in the chart below), covers all business divisions and the products and services offered within them. The process is conducted by the SCR unit, in partnership and agreement with relevant business representatives. UBS first evaluates the inherent risk at the product/service level, defining pre-mitigant risk to UBS across financial and non-financial risk types (e.g., credit and market risks for financial and operational, liability, and reputational risks for non-financial). Climate risk drivers that may result in impacts on banks and/or its clients, investees, and assets are decomposed to articulate the discrete channels from which these impacts may materialize. The transmission channel value chain is primarily built as follows:

- 1) climate risk driver (e.g., climate policies, tech for transition);
- 2) transmission impact (e.g., wealth or income);
- 3) channel (e.g., through counterparty, assets, or directly to UBS);
- 4) the type of channel (e.g., corporate debt asset, retail counterparty, etc.);
- 5) impact driver (e.g., credit worthiness);
- 6) impact variable (e.g., probability of default);
- 7) the type of risk (e.g., liquidity for financial, regulatory compliance, or reputational for non-financial);
- 8) primary differentiator (e.g., sectoral concentration in high-risk sectors);
- 9) risk amplifier (e.g., macroeconomic feedback loops);
- 10) mitigants (both internal and external).

These so-called climate risk transmissions channels are defined at the granularity of UBS's climate risk assessment methodologies. For example, climate transition risks that may result in credit losses to UBS (i.e., credit risk), are decomposed to examine how changes in global climate policies, low-carbon technologies, and downstream (consumer and investor) sentiment may affect either the credit worthiness of UBS counterparties and/or affect the value of collateral UBS may hold against existing credit facilities.

The database of transmission channels and narratives are analysed against the range of products and services UBS offers, to determine an initial inherent risk rating. Ratings are given on a qualitative (converted into a quantitative) scale ranging from low (1), moderate stable (2), moderate emerging (2.5) to high (3), and are distributed on a relative basis: risky items against relatively less risky ones across products within a business division, and across risk drivers and types.

Initial ratings are proposed by experienced SCR officers, leveraging in-house expertise, scientific and regulatory publications, news analysis and sector sustainability risk monitoring, and the relevant business model. Business representatives then engage relevant front-office experts to challenge SCR's initial proposal or confirm it. Business divisions undertake their own rating for potential risks arising in their products and services according to a step-by-step procedure of evaluation and ranking, review and approval, and documentation.

Assessments are evaluated on a two-way materiality basis. Both financial and non-financial risk impacts to UBS are evaluated, alongside impacts to the environment, climate, and human rights holders (for the broader SCR assessment). Materiality is assessed for those products and services with higher than average impact and/or risk rating. Items rated as having a potential material risk are mapped to relevant risk controls. The proposed materiality assessment is then provided to UBS's SCR Portfolio Underwriter.

Key aspects included in the holistic analysis, including amplification potential from macro-economic feedback loops (qualitatively included), as well as risk differentiating factors (including geographic, jurisdictional, and/or sectoral concentrations). To layer in the differentiating factors, transmission channels are mapped to a primary differentiator (e.g., geographic location is a key differentiator in determining UBS's exposure to acute climate hazards, whether in UBS's own operations or from our clients). Those differentiators link to existing risk concentration analyses, like climate risk heatmaps for sectoral heterogeneity along with other input factors. Concentrations of exposure to higher-risk geographies, jurisdictions, and/or sectors are given a relative rating in line with the relative rating approach taken in the overall initial risk rating (above) and averaged into the risk and impact rating already given (otherwise referred to below as the "enhanced rating"). Further enhancements planned for 2023 include quantitative integration of macro-economic feedback loops, expansion of traditional risk categories (e.g., include

liquidity), layering of risk mitigants (e.g., structural product considerations, or insurance in the short term), and further academic exploration towards identifying new and enhanced transmissions channels.

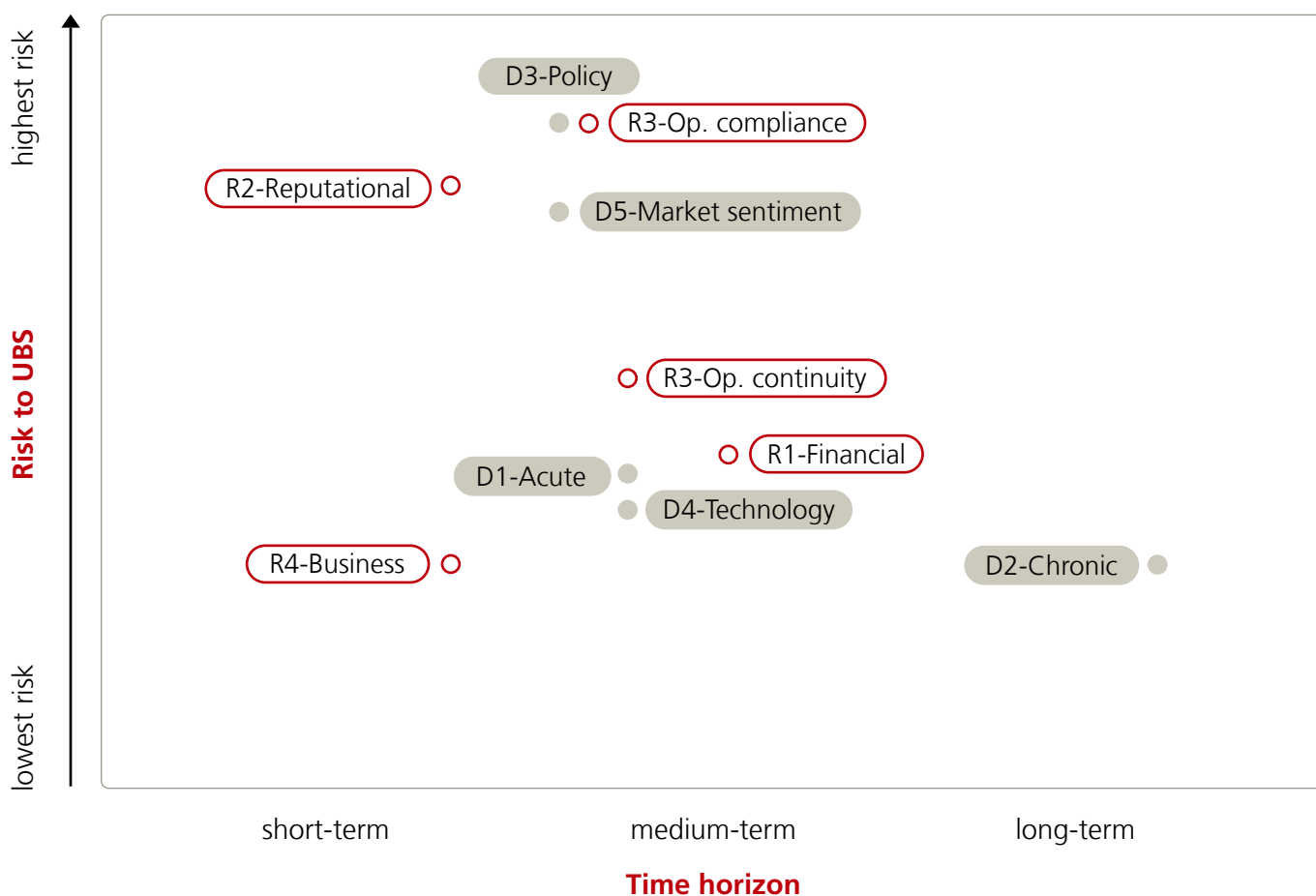
Concerning the time horizon (shown on the X-axis in the chart below), UBS defines short term as less than three years, medium term as three to ten years and long term as beyond ten years. Currently, the most relevant time horizon for risk and impact are determined in agreement with relevant business division representatives, across the transmission channels. This is then given a rating from short to long term, with an ordinal integer assigned respectively. In 2023, we expect to assign an individual rating to each of the three time horizons for each channel and product/service, as to reflect both the complex nature of climate risk timing and its embedded uncertainty.

### Final ratings

Enhanced ratings for each transmission channel are obtained by averaging the front-to-back agreed risk rating, impact rating, and SCR-defined differential ratings for each identified channel and relevant product or service. Driving towards a UBS firm-wide assessment, ratings are then further averaged amongst products within business divisions and normalized by the count of products/services, and further averaged amongst the business divisions. Two ratings are produced: 1) a risk rating and 2) a time horizon rating. Given the methodological approach in decomposing transmission channels, we are able to present ratings through multiple lenses, for example from the perspective of the climate risk driver or from the traditional risk category (e.g., credit, market, reputational, etc.).

In the graph below, we show the climate-driven risk ratings by risk driver (grey) and traditional risk type (red). For the traditional risk types, we aggregate results into financial, including both credit and market, and non-financial, including operational risk (relating to either business continuity or regulatory compliance) and reputational risk. This graph tells us that technological change-driven transition risks pose the lowest risk potential to UBS, while market sentiment-driven climate risks pose the highest potential risk (primarily due to UBS product footprint and great uncertainty associated with timing and impact of climate-related market-driven risks). Further analysis with respect to the ratings process defined above shows that due to UBS’s established climate strategy, climate-driven business risks are relatively low, when compared to, for example, inherent reputational risk exposure. Most importantly, and as substantiated by repeated scenario-based climate analyses since 2014, climate-driven financial risks are found to be stable in the mid-term, at moderate.

Climate-driven risks by risk driver and risk type



## Physical risk drivers

*D1-Acute:* Impacts from extreme weather events may affect the value of physical assets that UBS owns and finances, especially in the short- and medium-term time horizons. These impacts should be diligently addressed with regard to UBS's financial risk assessment. We consider the risks to our own physical assets through our comprehensive business continuity planning and physical climate risk identification process.

*D2-Chronic:* Impacts from incremental climate change may affect the value of physical assets that UBS owns and finances. Incremental changes in climate (e.g., rising temperatures and changes in precipitation patterns) can exacerbate extreme events, making them more frequent and severe, which in turn affects economic output and productivity. Such events could reduce the value of properties held as collateral. We see these potential risks emerging in the long term. Relevance of physical risks equally derives from geographical and sectoral disaggregation. Based on physical risk heatmaps, our exposure to climate-sensitive regions is considered moderately low. Similar conclusions are reached based on the sectoral disaggregation of our businesses.

## Transition risk drivers

*D3-Policy and regulatory:* As a global financial services firm active in wealth management, asset management, investment banking and the provision of services to corporate and institutional clients, our firm can be affected directly and indirectly by new carbon pricing regulation and energy transition policies. These measures can be designed to both constrain the impacts of climate change and/or promote an adaptive response to climate change impacts. They could impact our own operations, as well as the business operations of our corporate clients, given that such clients rely on the firm to finance their activities across a range of sectors. We routinely assess the impact of current and emerging regulation, either directly affecting our operations or indirectly affecting those sectors where we have clients. Assessments and gap-analysis exercises are conducted several times a year, following a standardized identification process defined by the climate risk program. Additionally, regulatory developments are assessed for impacts via quarterly monitoring.

*D4-Technological change:* Together with corporate clients that rely on UBS to finance their activities in a range of sectors, our firm is both directly and indirectly exposed to technological changes. We analyze these changes, such as the rise of electric vehicle and battery technologies in the automotive sector, or energy storage technology advancement impacts on the power utility sectors, through scenario analysis approaches.

*D5-Market sentiment:* We have made protecting our clients' assets a strategic pillar in our climate approach. Amid the growing demand for climate-focused products and services, we need to actively respond to market changes driven by the low-carbon transition and our clients' interest in managing climate-related risks. We address this potential risk through our comprehensive sustainability- and climate-focused product and service offering.

## Climate-driven risks

*R1-Financial:* On the credit risk side, we assess the impact to our firm through counterparties: household, corporate, or sovereign income and/or wealth given the ability to repay and service debt (income); or our ability to fully recover value of the loan in the event of a default, due to collateral devaluation (wealth). On the market-risk side, we assess the impact on the value of our financial assets, by altering or revealing new information about potential future economic conditions or the value of real or financial assets, resulting in downward price shocks and an increase in market volatility; that leads to a breakdown in correlations between assets or a change in market liquidity for certain assets.

*R2-Reputational:* Our reputation may be adversely affected if our climate-related actions and methods are not perceived as meeting existing or future industry standards and best practices. Examples of this would be allegations related to greenwashing or inadequate action on climate change. Increased reputational risks could lead to loss of business and may result in changes in regulations, which in turn could impact our business model.

*R3-Operational:* Climate-driven operational risk may increase with regulatory compliance and liability (operational compliance) and/or business continuity (operational continuity), associated with climate-sensitive investments and businesses. These can arise internally by inadequate or failed internal processes, people, and systems and/or externally by physical climate events or stakeholder legal action.

*R4-Business:* Business risk may materialize as client and investor sentiment changes. This could lead to changes in demand for existing and new products and services which could materially impact the bank's revenue performance.

› **Refer to the "Environment" section and the "Appendix 3 – Risk management" section for more details about climate-related risks**

# Appendix 3 – Risk management

## Our sustainability and climate risk policy framework

Our sustainability and climate risk policy framework is embedded in our culture and it:

- applies across all business divisions, Group Functions, locations, and legal entities;
- is integrated into management practices and control principles and overseen by senior management; and
- supports the transition toward a net-zero future.

### Introduction

The firm's Sustainability and Climate Risk (SCR) unit (as part of Group Risk Control), manages material exposure to sustainability and climate risks. It also advances our firmwide SCR initiative to build in-house capacity for the management of sustainability and climate-related risks.

At UBS, sustainability and climate risk is defined as the risk that UBS negatively impacts, or is impacted by, climate change, natural capital, human rights, and other environmental, social, governance (ESG) matters. Sustainability and climate risk may manifest as credit, market, liquidity, and/or non-financial risks for UBS, resulting in potential adverse financial, liability and/or reputation impacts. These risks extend to the value of investments and may also affect the value of collateral (e.g., real estate). Climate risks can arise from either changing climate conditions (physical risks) or from efforts to mitigate climate change (transition risks).

Our principles and standards apply across all business divisions, group functions, locations, and legal entities. They define roles and responsibilities for 1LoD (1st Line of Defense, i.e., client and supplier onboarding, transaction due diligence, periodic know-your-client reviews), for 2LoD (2nd Line of Defense, i.e., sustainability and climate risk transaction assessments), and for the GEB (that sets the sustainability and climate risk appetite standards of the firm). Our work in key societal areas, such as minimizing effects of climate change, protecting the environment and respecting human rights, is part of this. Living up to our societal responsibilities contributes to the wider goal of sustainable development. As a global firm, we take responsibility for leading the debate on important societal topics, contribute to the setting of standards and collaborate in and beyond our industry.

Managing sustainability and climate risk is a key component of our corporate responsibility. We apply a sustainability and climate risk policy framework to all relevant activities. This helps us identify and manage potential adverse impacts on the climate, environment and to human rights, as well as the associated risks affecting our clients and us. We have set standards for product development, investments, financing and supply chain management decisions. We have identified certain controversial activities we will not engage in, and certain areas of concern where we will only engage in under stringent criteria. As part of this process, we are committed to engaging with clients and suppliers to better understand their processes and policies and to explore how climate-, environment- and human-rights-related risks and impacts may be mitigated.

Most recently, UBS has developed guidelines and frameworks for Sustainable Lending, Bond and GHG Emissions Trading Products and services. These guidelines support UBS's growth strategy for sustainable products and services and the work to ensure that sustainability-related criteria is met.

### Our commitment

Our commitment to sustainability starts with our purpose. We know finance has a powerful influence on the world. At UBS we reimagine the power of people and investment, to help create a better world for everyone: a fairer society, a more prosperous economy and a healthier environment. That is why we partner with our clients to help them mobilize their capital toward a more sustainable world. It is why we have put sustainability at the heart of our own business too. To help us maximize our impact and direct capital to where it is needed most, we are focusing on three key areas to drive the sustainability transition: planet, people, partnerships.

Some of our key commitments to sustainability include:

**1992** – one of the first financial institutions to sign up to the UN Environment Programme bank declaration (the UNEP FI);

**2000** – one of the first companies to endorse the UN Global Compact and, in the same year, our firm was a founding member of the Wolfsberg Group of Banks, which was originally set up to promote good practice in combating money laundering;

**2002** – CDP founding signatory;

**2011** – our firm was a driving force behind the establishment of the Thun Group of Banks, which has published two discussion papers that seek to establish a framework to facilitate the identification of the key challenges and best practice examples for the financial sector's implementation of the UN Guiding Principles on Business and Human Rights (the UNGPs);

**2014** – we endorsed the "Soft Commodities" Compact from the Banking Environment Initiative and the Consumer Goods Forum, which reaffirms our commitment to developing and implementing responsible business standards;

**2019** – we became a founding signatory of the UN Principles for Responsible Banking (the PRB). The PRB constitutes a comprehensive framework for the integration of sustainability across banks.

Progress made in implementing Group Sustainability and Impact objectives is reported as part of UBS's annual reporting. This reporting is reviewed and assured externally according to the requirements of the Global Reporting Initiative's (GRI) Sustainability Reporting Guideline. UBS is certified according to ISO 14001, the international environmental management standard.

› **Refer to the Sustainability Report's Supplementary Information document for an overview of our external commitments and memberships**

### Climate change

Climate change is one of the most significant challenges of our time. The world's key environmental and social challenges, such as population growth, energy security, loss of biodiversity and access to drinking water and food, are all closely intertwined with climate change. This makes the transition to a low-carbon economy vital.

We support this transition through our comprehensive climate strategy, which covers two main areas: managing climate-related financial risks; and taking action on a net-zero future. Underpinning these two main areas are four strategic pillars: protecting our clients' assets; protecting our own assets; mobilizing private and institutional capital; and reducing our direct climate impact.

We were a founding member of the Task Force on Climate-related Financial Disclosures (the TCFD) in 2015, and we continue to support the TCFD's development, with formal representation in the Task Force since 2016. We became a founding member of the Net Zero Asset Managers initiative in 2020 and a founding member of the Net-Zero Banking Alliance in 2021.

### Forests and biodiversity

We seek to promote nature-related drivers, including biodiversity, focusing on key stakeholder groups (clients, vendors, employees and society at large). Deforestation and forest degradation can cause loss of biodiversity and negatively impact ecosystems services. As approximately 80%<sup>1</sup> of the world's documented species are found in tropical rainforests, deforestation will impact global biodiversity. Approximately 24%<sup>2</sup> of global GHG emissions come from the land sector, which is the second-largest source of emissions after the energy sector. Most of those emissions come from land use changes, such as agriculture activities (cultivation of crops and livestock) and deforestation.

Worldwide it is estimated that more than half of forest loss is due to conversion of forest into cropland (mainly for oil palm and soybean production), while raising of livestock is responsible for almost 40%<sup>3</sup> of forest loss. It is further estimated that almost 50%<sup>3</sup> of all recent tropical deforestation is due to illegal commercial agriculture activities and timber plantations. In human terms, millions of people rely directly on forests (small-scale agriculture, hunting and gathering, and harvesting forest products such as rubber). Yet deforestation continues to cause severe societal problems, impacting traditional communities and sometimes leading to violent conflicts.

Recognizing these risks, we:

- became a member of the Responsible Roundtable on Sustainable Palm Oil (the RSPO) in 2012. RSPO certification is a guarantee that palm oil production is sustainable. Accredited certified bodies perform extensive reviews on palm oil producers to ensure strict compliance with RSPO Principles & Criteria for Sustainable Palm Oil Production.
- endorsed the “Soft Commodities” Compact from the Banking Environment Initiative and the Consumer Goods Forum. In doing so we aim to support the transformation of soft commodity supply chains by expecting producers to be committed to achieving full certification according to applicable sustainability certification schemes, such as the RSPO. We acknowledge that acquiring land without adequate consultation, compensation and consideration of customary land rights (commonly referred to as land grabbing) can significantly impact local communities, often smallholders who primarily rely on subsistence farming to sustain their livelihood.
- have identified and will not engage in certain activities that contribute to deforestation and its related impacts (see the “Controversial activities – where UBS will not do business” and “Areas of concern – where UBS will only do business under stringent criteria” sections of this report).

## Our standards

We have set standards in product development, investments, financing and supply chain management decisions. These include the stipulation of controversial activities and other areas of concern we will not engage in, or will only engage in under stringent criteria.

### Controversial activities – where UBS will not do business

UBS will not knowingly provide financial or advisory services to clients whose primary business activity, or where the proposed transaction, is associated with severe environmental or social damage to or through the use of:

- world heritage sites as classified by the UN Educational, Scientific and Cultural Organization (UNESCO);
- wetlands on the Ramsar list;
- endangered species of wild flora and fauna listed in Appendix 1 of the Convention on International Trade in Endangered Species;
- high conservation value forests as defined by the six categories of the Forest Stewardship Council (the FSC);
- illegal fire: uncontrolled and/or illegal use of fire for land clearance;
- illegal logging including purchase of illegally harvested timber (logs or roundwood);
- child labor according to International Labor Organisation (ILO) Conventions 138 (minimum age) and 182 (worst forms);
- forced labor according to ILO Convention 29; and
- indigenous peoples’ rights in accordance with IFC Performance Standard 7.

The same standards apply when UBS purchases goods or services from suppliers.

In addition, UBS does not directly or indirectly finance the development, production or purchase of controversial weapons of such companies determined to fall within the “Swiss Federal Act on War Materials.”

On the topic of cluster munitions and anti-personnel mines, UBS does not provide credit facilities to, nor conduct capital market transactions for, companies that are involved in the development, production or purchase of cluster munitions and anti-personnel mines. UBS does not include securities of affected companies in its actively managed retail and institutional funds and in discretionary mandates. UBS draws upon external expertise to decide whether a company is subject to the restrictions imposed by Swiss law.

### Areas of concern – where UBS will only do business under stringent criteria

We apply specific guidelines and assessment criteria to transactions with corporate clients engaged in the areas of concern listed below. The guidelines and assessment criteria apply to loans, trade finance, direct investments in real estate and infrastructure, securities and loan underwriting transactions, and investment banking advisory assignments.

<sup>1</sup> Based on information from WWF, available on [www.panda.org/discover/our\\_focus/forests\\_practice/importance\\_forests/tropical\\_rainforest/](http://www.panda.org/discover/our_focus/forests_practice/importance_forests/tropical_rainforest/)

<sup>2</sup> Based on information from the Environmental Protection Agency, available on [epa.gov/ghgemissions/global-greenhouse-gas-emissions-data](http://epa.gov/ghgemissions/global-greenhouse-gas-emissions-data)

<sup>3</sup> Based on information from the European Parliament, available on [europarl.europa.eu/news/en/headlines/society/20221019STO44561/deforestation-causes-and-how-the-eu-is-tackling-it](http://europarl.europa.eu/news/en/headlines/society/20221019STO44561/deforestation-causes-and-how-the-eu-is-tackling-it)



Transactions in the areas listed below trigger an enhanced due diligence and approval process. In addition to the assessment of regulatory compliance and adherence to UBS's controversial activities standards, as well as consideration of past and present environmental and human rights performance and concerns of stakeholder groups, these transactions require an assessment of the following criteria:

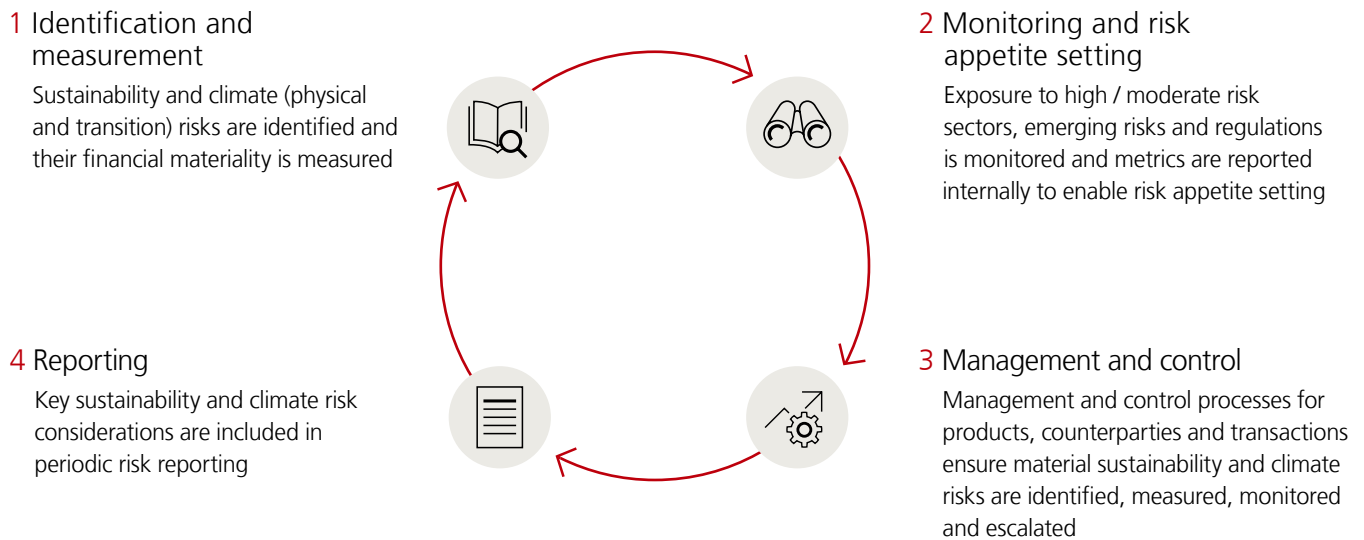
<b>Soft commodities</b>	
<b>Palm oil</b>	Companies must be members of the RSPO and not subject to any unresolved public criticism from the RSPO. Companies must further have some level of mill or plantation certification and be publicly committed to achieving full certification (evidence must be available). Companies must also be committed to "No Deforestation, No Peat and No Exploitation."
<b>Soy</b>	Companies producing soy in markets at high risk of tropical deforestation must be a member of the Roundtable on Responsible Soy (the RTRS), or must apply a similar standard such as Proterra, International Sustainability & Carbon Certification or Cefetra-Certified Responsible Soya, and not be subject to any unresolved public criticism from these standards. When a company is not certified, it must credibly commit to the RTRS or a similar standard, providing a robust time-bound plan or demonstrate a credible commitment toward an equivalent standard, to be independently verified.
<b>Forestry</b>	Producing company must seek to achieve full certification of its production according to the Forest Stewardship Council (FSC) or a national scheme endorsed against the Programme for the Endorsement of Forest Certification (PEFC) within a robust time-bound plan. Producing company must also have fire prevention, monitoring and suppression measures in place.
<b>Fish and seafood</b>	Companies producing, processing or trading fish and seafood must provide credible evidence of no illegal, unreported and unregulated fishing in their own production and supply chain.
<b>Power generation</b>	
<b>Coal-fired power plants (CFPP)</b>	We do not provide project-level finance for new coal-fired power plants globally and only support financing transactions of existing coal-fired operators (>20% coal reliance) if they have a transition strategy that aligns with the goals of the Paris Agreement or if the transaction is related to renewable energy or clean technology.
<b>Large dams</b>	Transactions directly related to large dams include an assessment against the recommendations made by the International Hydropower Sustainability Assessment Protocol.
<b>Nuclear power</b>	Transactions directly related to the construction of new, or the upgrading of existing nuclear power plants include an assessment on whether the country of domicile of the client / operation has ratified the Treaty on the Non-Proliferation of Nuclear Weapons.
<b>Extractives</b>	
<b>Arctic oil and oil sands</b>	We do not provide financing where the stated use of proceeds is for new offshore oil projects in the Arctic or greenfield <sup>1</sup> oil sands projects, and only provide financing to companies with significant reserves or production in arctic oil and/or oil sands (>20% of reserves or production) if they have a transition strategy that aligns with the goals of the Paris Agreement or if the transaction is related to renewable energy or clean technology.
<b>Coal mining and mountain top removal (MTR)</b>	We do not provide financing where the stated use of proceeds is for greenfield <sup>1</sup> thermal coal mines and do not provide financing to coal-mining companies engaged in MTR operations. We only provide financing to existing thermal coal-mining companies (>20% of revenues) if they have a transition strategy that aligns with the goals of the Paris Agreement, or if the transaction is related to renewable energy or clean technology.
<b>Liquefied natural gas (LNG)</b>	Transactions directly related to LNG infrastructure assets are subject to enhanced sustainability and climate risk due diligence considering relevant factors such as management of methane leaks and the company's past and present environmental and social performance.
<b>Ultra-deepwater drilling</b>	Transactions directly related to ultra-deepwater drilling assets are subject to enhanced sustainability and climate risk due diligence considering relevant factors such as environmental impact analysis, spill prevention and response plans, and the company's past and present environmental and social performance.
<b>Hydraulic fracturing</b>	Transactions with companies that practice hydraulic fracturing in environmentally and socially sensitive areas are assessed against their commitment to and certification of voluntary standards, such as the American Petroleum Institute's documents and standards for hydraulic fracturing.
<b>Precious metals and minerals</b>	Transactions directly related to precious metals or minerals assets that have a controversial environmental and social risk track record are assessed against commitment to and certification of voluntary standards, such as the International Council on Mining & Metals (ICMM), International Cyanide Management Code (ICMC), the Conflict-Free Smelter Program and the Conflict Free Gold Standard of the World Gold Council, the Responsible Gold Guidance of the London Bullion Marketing Association (LBMA), the LBMA or London Platinum and Palladium Market (LPPM) Good Delivery Lists, the Chain-of-Custody and Code of Practices of the Responsible Jewellery Council, the Fairmined Standard for Gold from Artisanal and Small-Scale Mining of the Alliance of Responsible Mining, the Voluntary Principles on Security and Human Rights, and the International Code of Conduct for Private Security Providers. Transactions directly related to precious metals sourcing, custody, distribution and trading are assessed against precious metals' production by refineries that are listed on the London Good Delivery List (LGD), or the Former London Good Deliver List (FLGD) for precious metals produced up to refineries' removal from the LGD, as maintained by the LBMA and LPPM.
<b>Diamonds</b>	Transactions with companies that mine and trade rough diamonds are assessed on the client's commitment to and certification of voluntary standards, such as the ICMM, and rough diamonds must be certified under the Kimberly Process.

<sup>1</sup> Greenfield means a new mine / well or an expansion of an existing mine / well that results in a material increase in existing production capacity.

## Sustainability and climate risk framework

UBS annually performs a sustainability and climate risk materiality assessment of its products, services and supply chain (in accordance with the ISO 14001 standard and UBS's Risk Control Self-Assessment). Products, services and activities deemed as having high risk are subject to the following framework.

### Sustainability and climate risk framework



Standard financial and non-financial risk processes ensure that material sustainability and climate risks are identified, assessed, approved and escalated in a timely manner. These include controls during client onboarding, transaction due diligence and product development and as part of the investment decision processes, own operations, supply chain management and portfolio reviews.

## Governance

Given the many sustainability- and climate-related challenges globally, these topics will continue to increase in relevance for banks. These developments therefore require regular and critical assessment of our policies and practices, based on an accurate monitoring and analysis of societal topics of potential relevance to UBS.

The management of sustainability and climate risk is steered at the GEB level. Reporting to the Group CEO, the Group Chief Risk Officer is responsible for the development and implementation of control principles and an appropriate independent control framework for sustainability and climate risk within UBS, and its integration into the firm's overall risk management and risk appetite frameworks. The Chief Risk Officer (the CRO) for Sustainability supports the GEB by providing leadership on sustainability in collaboration with the business divisions and Group Functions.

### Integration in financial and non-financial processes

- *Client onboarding*: Potential clients are assessed for sustainability and climate risks associated with their business activities as part of UBS's know-your-client (KYC) processes.
- *Transaction due diligence*: Sustainability and climate risks are identified and assessed as part of standard transaction due diligence and decision-making processes.
- *Product development and investment decision processes*: New financial products and services are reviewed before their launch in order to assess their compatibility and consistency with UBS's environmental and human rights standards. Sustainability and climate risks are also considered where relevant as part of the firm's overall ESG approach to investment decision processes and when exercising ownership rights, such as proxy voting, and engagement with the management of investee entities.
- *Own operations*: Our operational activities and employees, and contractors working on UBS's premises, are assessed for compliance with relevant environmental, health and safety, and labor rights regulations.
- *Supply chain management*: Sustainability and climate risks are assessed when selecting and dealing with suppliers. UBS also evaluates goods and services that pose potential environmental, labor and human rights risks during the life cycle (production, usage and disposal) as part of its purchasing processes.

– *Portfolio review*: At the portfolio level, we regularly review sensitive sectors and activities prone to bearing sustainability- and climate-related risks. We assess client exposure and revenue in such sectors and attempt to benchmark the portfolio quality against regional and/or sector averages. Such portfolio reviews give us an accurate aggregated exposure profile and an enhanced insight into our transaction and client onboarding processes. Based on the outcome of these reviews, we can explore ways to improve the future portfolio profile along a range of risk parameters.

Clients, transactions or suppliers potentially in breach of our standards, or otherwise subject to significant climate, environmental and human rights controversies, are referred to our SCR unit, which approves or rejects the cases after assessing their compliance with the firm's risk appetite standards. Advanced data analytics on companies associated with such risks is integrated into the web-based compliance tool used by our staff before they enter into a client or supplier relationship, or a transaction. The systematic nature of this tool significantly enhances our ability to identify potential risk.

In 2022, 2,834 referrals were assessed by our SCR unit, of which 93 were rejected or not pursued, 397 were approved with qualifications and 365 were pending. An increased focus on biodiversity and nature-related risk was also observed through the 466 assessments focused on the agribusiness sector. The overall number of SCR referrals decreased by 3% compared with 2021.

› Refer to the Sustainability Report's Supplementary Information document for climate and nature-related SCR cases studies

### Sustainability and climate risk assessments

	For the year ended			% change from
	31.12.22	31.12.21	31.12.20	31.12.21
<b>Cases referred for assessment<sup>1</sup></b>	<b>2,834</b>	2,919	2,168	(3)
<b>by region</b>				
Americas	548	496	373	10
Asia Pacific	729	631	551	16
Europe, Middle East and Africa (excluding Switzerland)	481	556	223	(13)
Switzerland	1,076	1,236	1,021	(13)
<b>by business division</b>				
Global Wealth Management	151	278	170	(46)
Personal & Corporate Banking	1,151	1,345	933	(14)
Asset Management	11	24	56	(54)
Investment Bank	1,443	1,162	977	24
Group Functions <sup>2</sup>	78	110	32	(29)
<b>by sector<sup>3</sup></b>				
Agribusiness <sup>4</sup>	466	536	406	(13)
Chemicals <sup>5</sup>	134	133	97	1
Financial <sup>6</sup>	438	283	168	55
Infrastructure <sup>7</sup>	142	148	90	(4)
Metals and mining	481	615	492	(22)
Oil and gas	350	318	354	10
Technology <sup>8</sup>	144	190	141	(24)
Transport	85	80	60	6
Utilities	204	225	186	(9)
Other <sup>9</sup>	390	391	174	0
<b>by outcome<sup>10</sup></b>				
approved <sup>11</sup>	1,965	1,988	1,696	
approved with qualifications <sup>12</sup>	397	396	349	
rejected or not further pursued <sup>13</sup>	93	106	119	
pending <sup>14</sup>	365	49	9	
assessed <sup>15</sup>	14	380	0	

<sup>1</sup> Transactions and client onboarding requests referred to the SCR function. <sup>2</sup> Relates to procurement / sourcing of products and services. <sup>3</sup> Amendment in sector calculation: sectors calculated based on first assessed entity. <sup>4</sup> Includes, e.g., companies producing or processing fish and seafood, forestry products, biofuels, food and beverage. <sup>5</sup> Includes e.g. chemical and pharmaceutical companies. <sup>6</sup> Includes, e.g., banks, commodity traders, investments and equity firms. <sup>7</sup> Includes e.g., real estate and construction and engineering companies. <sup>8</sup> Includes technology and telecom companies. <sup>9</sup> Includes, e.g., aerospace and defense, general industrials, retail and wholesale. <sup>10</sup> "By outcome" 2022 data is from 25 January 2023. Outcomes from 2021 and 2020 were also recalculated. <sup>11</sup> Client / transaction / supplier transactions approved at SCR. <sup>12</sup> Client / transaction / supplier subject to an SCR assessment and approved with qualifications. Qualifications may include ring-fencing of certain assets, conditions toward client / supplier or internal recommendations. <sup>13</sup> Client / transaction / supplier subject to an SCR assessment and rejected or not further pursued. <sup>14</sup> Decision pending. Except for few cases still in progress from 2021 and 2020, all 2019 pending cases have been closed and reallocated to the other outcome categories. <sup>15</sup> Assessed companies related to portfolio reviews.

# Climate- and nature-related risk methodologies and scenarios

This section provides an overview of the methodological approaches taken in developing our sustainability and climate risk (SCR) analytics, including detailed information on the methodology documentation, commensurate with the materiality and complexity of the heatmaps.

## Climate risk methodologies

We have developed climate- and nature-related risk methodologies, which rate cross-sectoral exposures to SCR sensitivity, on a scale from high to low. Following a risk segmentation approach, these methodologies define “climate- (or nature-) sensitive” exposures by aggregating the top three out of five risk ratings (absolute, in USD) over the total lending exposure to customers (on- and off-balance sheet, percent).

### Transition risk heatmap

We have based our transition risk heatmap methodology on dividing economic sectors with similar risk characteristics into risk segments and rating those segments according to their vulnerability to (i) climate policy, (ii) low-carbon technology risks and (iii) revenue or demand shifts under an immediate and ambitious approach toward meeting Paris-Agreement goals. As a result, the ratings in the heatmap reflect the levels of risk that would likely occur under an ambitious transition (in a short-term time horizon).

This climate risk heatmap rates UBS’s cross-sectoral gross financial exposures to climate-transition sensitivity from high to low (sensitivity for financial impacts to the creditworthiness and/or value of corporate entities and real estate assets) through a risk segmentation process. We base our ratings upon climate risk ratings determined by ratings agencies, regulators, and expert consultants and are further developed by UBS. The rating given may be considered a proxy for the likelihood (e.g., a “high” rating for most fossil fuel sectors), while our exposure classification to those ratings (and sub-sectors) may be considered a proxy for inherent risk.

Our findings show very low exposure to high-risk economic activities / subsectors (energy sector credit risk), while a low exposure to moderate activities / subsectors (climate-sensitive sector credit risk). We derived the methodological approach for the transition risk assessment from an active collaboration with the UNEP FI and Oliver Wyman.

### Physical risk heatmap

We developed our physical risk heatmap methodology in-house to reflect the vulnerability to physical risk and to climate change (acute and chronic) across the regions (Switzerland, North America, Europe and Central Asia, Latin America and the Caribbean, East Asia and Pacific, the Middle East and North Africa, and sub-Saharan Africa), as well as sectors and related value chain risk factors, which are derived from a range of academic and expert sources per the external sources listed below. As a result, the ratings in the physical risk heatmap reflect the levels of risk exposure that would likely occur under an ambitious transition (in a short- time horizon).

The physical risk heatmap methodology groups corporate counterparties based on exposure to key physical risk factors, by rating sectoral (sectoral average risk distribution), geographic (country vulnerability and adaptive capacity), and value chain (sectoral average risk distribution) vulnerabilities in a climate change trajectory, in which no additional policy action is taken and scored for the potential for financial loss in the short-term time horizon. The metric sums normalized scores for sector (average geographic footprint used as proxy in lieu of asset-level data), location (country of risk domicile), and value-chain exposures. Ratings from low to high are based on a weighted average score (from 0 to 1), given by twice the weight for sector and geography, and once for value-chain (as it partly is included in sectoral and geographic scores).

Scores are given by the following inputs:

- the counterparty’s sectoral activity (e.g., primary energy extraction presents higher physical risks than banks due to the sector’s average geographic footprint and vulnerability to financial losses in the short term from physical risk hazards);
- the counterparty’s geography, represented by the main country of risk domicile. For example, countries in Southeast Asia tend to be higher risk than those in western Europe, with some exceptions, reflecting the potential for national economic resilience and subsidy to economic activities threatened by climate change; and
- the potential disruption to a counterparty’s value chain, where relevant (both its supply chain and distribution channels again reflecting the sectoral average geographic footprint and vulnerability).

	Transition risk	Physical risk
<b>Methodology</b>	Expert-based transition risk ratings obtained from the UNEP-FI and Oliver Wyman for sectors (e.g., energy, and agriculture and forestry), as well as industry segments are rated to a score (between 0 and 1) and then multiplied with each other to obtain a final transition risk score ranged within a rating (low / moderately low / moderate / moderately high / high). The scores and ratings are mapped to the predetermined scope of financial exposures, which are adjusted for country / energy mix (Switzerland and the Investment Bank).	Calculated by averaging the cumulative distribution function transformation of the normalized version of the physical risk score / rank obtained from the respective indices. This score is ranged within a rating (low / moderately low / moderate / moderately high / high). The scores and ratings are mapped to the predetermined scope of financial exposures.
<b>Timelines</b>	Short-term (0–3 years)	Short-term (0-3 years)
<b>Scenario</b>	Ambitious transition meeting <2°C objectives	Business as usual
<b>Interpretation</b>	Reflect levels of risk and likelihood of financial impact and exposure based on scenario	Reflect level of risk and likelihood of financial impact and exposure based on scenario
<b>Examples</b>	“High” for most fossil fuel sectors, “Moderate” for some transport sub-sector	“High” for energy in Southeast Asia, “Moderate” for energy in Switzerland

## Nature-related risk methodology

With this metric we measure our firm’s risk exposures within sectors with a moderate to high dependency on natural capital, as defined through the ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) methodology. ENCORE identifies economic activities that are most vulnerable to financial impacts due to their dependency on ecosystem services and maps production processes within economic sectors to ecosystem services dependencies and potential impacts on natural capital assets.

We are piloting this methodology, toward consideration of different approaches of quantifying both dependency and impact on natural-related topics, in advance of the pertinent Taskforce on Nature-related Financial Disclosures (the TNFD) discussions. Our nature-related risk metric:

- can be used to identify sectors and segments that are potentially vulnerable to disruption of ecosystem services, which, in turn, enables resource prioritization for detailed bottom-up risk analysis (*risk identification*);
- can be mapped to a portfolio to see how material is the dependency on nature-related risks, supporting the strategic decision-making process to reduce risk exposures (*strategic prioritization*); and
- can serve as a useful guide when thinking about sensitivities to various risk drivers, especially in sectors that the firm has not previously assessed, providing decision-useful information in internal reports to executive and board leadership and external disclosure to stakeholders (*risk assessment*).

### Calculation logic

The natural capital risk heatmap identifies our firm’s exposure to companies in sectors where activities are vulnerable to disruption of ecosystem services due to dependency on the natural environment. Our SCR unit mapped the ENCORE database to UBS industry codes / GIC 2.0. Respective ratings were then assigned to the GIC 2.0 sectors / subsectors. The ratings for ecosystem services dependencies of a sector considers the potential (i) loss of functionality of a production process; and (ii) financial loss, if the ecosystem service is disrupted. Production processes are organized under subsectors, to which UBS GIC 2.0 sectors are mapped, and ratings given to the subsector represent the maximum risk rating amongst production processes, for each ecosystem service, for each subsector. The score ranges from 5 (high dependency) to 1 (low dependency). Scores are summarized (added) and standardized on a normal cumulative distribution function. Our firm’s exposure classification to those ratings (and subsectors) may be considered a proxy for dependencies to ecosystem services. The metric of dependency / total lending exposure (as a percentage) is calculated in line with the climate sensitive metric.

### Scenarios used by UBS

We use scenario-based approaches to assess our exposure to physical and transition risks stemming from climate change. A table in our Sustainability Report, available on [ubs.com/gri](https://ubs.com/gri), summarizes the scenarios used by UBS.

# Information pertaining to environmental risk management regulations in APAC

## Governance

The board of directors and senior management of UBS Asset Management (Hong Kong) Limited (“UBSHK”) and UBS Asset Management (Singapore) Ltd. (“UBSSG”) are informed and kept updated on climate- and environment-related risks, respectively. These risks are reviewed by the following bodies in UBSSG and UBSHK:

- Asset Management executive team and global heads: The Asset Management executive team at global level is responsible for the overall strategic considerations of integration of climate risks connected to the division’s investment activities, governance and controls.
- Board of directors of UBSSG / UBSHK: The board of directors is the governing body of UBSSG or UBSHK and is responsible for following the overall direction from the global level as well as the supervision and implementation of climate-related risks. It assumes ultimate responsibility for the conduct, operations and financial soundness of the respective entity, including quarterly meetings to monitor climate-related risks.
- Designated management-level positions: The responsibilities of designated management include ensuring the development, implementation and review of framework, policies, and metrics and allocating adequate resources with appropriate expertise. Regular management meetings are held to monitor the status and progress of efforts to manage climate-related risks.

## Our investment and risk management approach to climate risks

Our overall strategy for managing climate risks is to integrate risk data and insights into our investment management processes. This begins with assessing environmental, social and governance (ESG) issues based on our ESG Material Issues framework, which identifies the most relevant issues per sector making the connection to key value drivers that may impact the investment thesis across sectors. We have updated our ESG Material Issues framework with a sector-based view of exposures to physical and transition climate risks.

During 2022 we onboarded additional climate physical and transition risk datasets. We have enhanced our proprietary ESG Dashboard with this climate physical and transition risk data, and with alerts to highlight the highest risk issuers. This enables research analysts to incorporate physical and transition climate risks into their qualitative ESG risk assessments and resulting ESG risk recommendations, informing portfolio manager investment decisions.

## Data and Metrics

During 2022 we onboarded additional climate physical and transition risk datasets to support ongoing enhancements to our investment management and risk management processes. We have also enhanced our proprietary ESG Dashboard with this climate physical and transition risk data, and with alerts to highlight the highest risk issuers. At a portfolio level, our global risk system provides transparency around GHG emissions.

- Physical risk arises from the impact of weather events and long-term or widespread environmental changes. High physical risks imply high probability of a company’s assets value reduction or production interruption. Our climate physical risk assessment considers events such as heat/cold wave, water stress, flooding, sea-level rise, hurricanes and wildfires, and results in a composite physical risk score. An issuer’s score is measured from 1 to 100, and is an aggregate (weighted average) of risk scores linked to individual assets measured across the climate hazards.
- Transition risk covers the adjustment to an environmentally sustainable economy, including changes in public policies, disruptive technological developments and shifts in consumer and investor preferences. One of the ways we assess transition risk is using an “Earning at risk” approach, which analyzes the unpriced carbon cost to a company as % of its EBITDA (Earnings before interest, taxes, depreciation, and amortization).

In line with the Securities and Futures Commission's circular on the management and disclosure of climate-related risks by fund managers and the Monetary Authority of Singapore's environmental risk management guidelines, we have implemented a multi-scenario analysis for physical and transition risks. Physical risks feature different temperature increase scenarios and transition risks consider different carbon price development scenarios. The scenarios are analyzed for various time horizons up to 2050 which can be used to determine future climate-related risk in investment portfolios. As part of the second line of defense controls performed by Group Risk Control for UBS funds subject to the Hong Kong, Singapore, or Taiwan risk regulations, guidelines, codes, circulars, etc., we integrated climate risk in the risk control and monitoring process including scenario analysis as described above.

For some of our portfolios, the assessment of climate-related risks is not possible in the investment management and risk management processes due to lack of data. For these portfolios, risk assessments will incorporate climate physical and transition risks as data becomes available.

## **Discretionary portfolios managed in Singapore (Global Wealth Management)**

### **Risk identification**

Our environmental risk framework for Global Wealth Management's discretionary portfolios managed in Singapore (and booked there or in Hong Kong) focuses on climate risk data from specialized data providers and is based on exposure to climate sensitivity, from high to low, across physical and transition risks. Identification of material environmental risks is achieved by scenario analyses on mid- and longer-term impact. It is run on our underlying investment models across different climate outcomes, based on weighted portfolio sensitivities to physical and transition risks.

For physical risk, we consider as our central scenario representative concentration pathways (RCP) 4.5 (reflecting expected global warming of 2–3°C by 2100) and associated modeled physical risk implications on asset values by 2030. Additionally, we perform scenario analysis on RCP 2.6 (below 2°C) and RCP 8.5 (more than 4°C under a business-as-usual scenario) into the longer term (2050).

For transition risk, we see carbon earnings at risk as the most directly quantifiable and comparable metric across industry sectors globally, reflecting the reach and complexity of our portfolios. We perform scenario analysis based on three carbon price trajectories (low, medium, high) across four time horizons: short (2025) to long-term (2050), with medium (2030) as our central scenario. Outside of carbon earnings at risk, we recognize the existence of technological, policy and market risks. However, these can vary greatly across sectors and countries. As a result, it is difficult to apply a consistent and credible analysis that remains objective to our global portfolios.

The identification of the middle-of-the-road pathway and 2030 as the central scenario balances multiple factors, namely: the relevance of financial projections, current decarbonization policies and implementation rates, and the need for near-term checkpoints within long-term climate action. For both physical and transition risk, in addition to highlighting portfolios with material sensitivity in high-risk scenarios, we monitor the weighted portfolio sensitivity based on the central scenario.

### **Data and Disclosure**

All climate data projections and models are sourced at the issuer level from S&P Trucost and aggregated by UBS. For physical risk, sensitivities are assessed by S&P Trucost based on issuers' known asset locations and estimated value. For transition risk, earnings sensitivity to carbon is projected under various carbon pricing trajectories in different regions. In both cases, the projections are built upon publicly reported company data, restricting coverage to corporate issuers, which form the bulk of our portfolios. Consequently, exposure to sovereigns or structured products, for example, are not covered at this point. This framework will be reviewed at least annually and progressively enhanced as data availability increases and industry practices develop.

In June 2022, we expanded our coverage of climate risk monitoring to discretionary investment portfolios managed by Global Wealth Management in Singapore, in line with the Monetary Authority of Singapore (MAS) Guidelines on Environmental Risk Management for Asset Managers. Our environmental risk analyses to identify and monitor material risks within our discretionary portfolio strategies managed in Singapore are conducted and reported on an annual basis.

Global Wealth Management has developed a governance and control framework to ensure quality and consistency of data and ongoing monitoring of identified risks, reviewed by regional and global oversight forums and risk committees. We are also working closely with our data providers to continuously enhance the quality of data available to us.

As part of the 2022 environmental risk analysis, the majority of strategies had no material physical risks identified. However, our transition risk analysis highlighted select strategies with elevated mid-term exposure which are being monitored, and have been reviewed and acknowledged by the relevant governance bodies.

At this point in time, climate risk analyses would not be used to inform capital evaluation either at the asset allocation or instrument selection levels within Global Wealth Management, due to investment scope, limitations of data availabilities, modeling uncertainties and implementation hurdles. The majority of our discretionary portfolios comprise of investment funds from third-party fund managers, including Asset Management where appropriate. Generally, Global Wealth Management acts as an asset allocator and manager of these portfolios but does not control portfolio construction and management within the underlying fund investment solutions. Therefore, on top of developing a climate risk assessment management framework based on underlying investment holdings, we are looking to understand the climate risk management practices established by the managers of the underlying funds.

To that end, in the past we communicated with our fund partners about climate risk issues, including the extent to which environmental / climate risk management processes have been developed and implemented by fund partners, with relevance to the MAS Guidelines on Environmental Risk Management for Asset Managers. We commit to continue having regular communications with our fund partners on the development of environmental / climate risk management processes.

Climate risk data remains a nascent area, and best practice standards or norms have yet to be developed. This results in gaps in data coverage, and the use of proxy or estimation techniques which are known. Financial models typically project up to three years in advance, with significant deterioration in visibility beyond one year. As such, long-term projections used to generate data even for 2030 involve high degrees of uncertainty.

Our overall investment decision-making process is largely driven top-down. While corporate-level data sourced from S&P Trucost has been identified as the best prevailing solution for Global Wealth Management portfolios given its credibility, complexity and reach, the bottom-up dataset is not immediately applicable to integration into Global Wealth Management investment processes without the use of significant aggregation and proxies.



# Appendix 4 – Metrics and targets

## Our transition plan

Our transition plan is a prioritized plan of action following the aspirations outlined in our net-zero and beyond strategy to achieve net-zero carbon emissions in our own operations and our business activities (as set out in our commitments to the Net Zero Asset Managers (NZAMi) initiative and the Net-Zero Banking Alliance (NZBA)) while supporting our clients through their own transitions to net zero. The structure of our plan follows the recommendations of the Glasgow Financial Alliance for Net Zero (GFANZ) outlined in the “Financial Institutions Net-zero Transition Plans” guidelines. GFANZ published these guidelines, to which UBS contributed during their development, at the 27th session of the Conference of the Parties of the UNFCCC (COP 27).

UBS contributed to the development of these guidelines. This forms part of our engagement with our peers in the financial services industry in order to determine how best to support and finance clients’ transition to a low carbon economy. Contributing to such frameworks, including also by the NZBA, in turn forms an important basis for developing our own approach to transition finance.

We believe the GFANZ guidelines to be comprehensive and relevant for the financial sector, but will also continue to monitor other potential emerging standards. Our action plan touches on numerous aspects of our Sustainability Report (SR22), which are referenced in the table below.

› Refer to [gfanzero.com/our-work/financial-institution-net-zero-transition-plans/](https://gfanzero.com/our-work/financial-institution-net-zero-transition-plans/) for GFANZ’s recommendations

#	Theme	Principles	Key activities engaged by UBS and where to find more information
<b>Foundation</b>			
1	<b>Objectives and priorities</b>	<p>Conscious of the potential adverse financial, liability and reputational risks that can arise from sustainability and climate risks and in response to client needs:</p> <ul style="list-style-type: none"> <li>– We are focused on supporting the transition toward a net-zero future, with the goal of limiting global warming to 1.5° C.</li> <li>– We aspire to achieve net-zero greenhouse gas emissions resulting from across our business by 2050. In line with this commitment, we will reduce the carbon footprint of our loan book across sectors that account for a sizable share of our credit portfolio and financed emissions and have set intermediate net-zero targets for 2030 for the following sectors: fossil fuels, power generation, real estate and cement.</li> <li>– We are committed to directing capital toward the low-carbon transition through investments, and by helping our financing clients to achieve their climate targets.</li> <li>– We provide our investing clients with the choice they need to meet their sustainability and impact objectives, including climate impact where that is their priority and in line with our fiduciary duties.</li> <li>– We aspire to lead by example, and have committed to net zero for scope 1 and 2 emissions by 2025, prioritizing emission reduction at source.</li> </ul>	<ul style="list-style-type: none"> <li>– See SR22 – “Our aspirational goals and progress” subsection for a description of our financing reduction targets for 2030 and Asset Management (AM)’s target to align 20% of total assets under management (AuM) to be in line with net zero.</li> <li>– See SR22 – “Our climate roadmap” subsection for a description of the steps we intend to take toward net zero until 2050 and for our net-zero strategies and approaches to reduce emissions from our financing, investment and own operations.</li> <li>– See SR22 – Appendix 5 – “Objectives 2023” subsection for more details about our objectives aligned to the mid- and long-term targets.</li> <li>– See SR22 – “Managing sustainability and climate risks” subsection and SR22 – Appendix 1 – “Climate-related materiality assessment” subsection for an overview of our reviews of risks, opportunities in the climate materiality assessment and impacts expected from implementation.</li> <li>– See SR22 – Appendix 3 – “Reducing our environmental footprint – additional information” subsection for more details about impact reduction and carbon offset purchases in the context of our own operations.</li> </ul>

Implementation strategy		
<b>2 Products and services</b>	<ul style="list-style-type: none"> <li>We help our clients assess, manage and protect their assets from climate-related risks by offering innovative products and services in investment, financing and research and through our climate risk disclosure.</li> <li>We are continually developing and refining sustainable solutions and approaches that help clients manage their exposures to climate change risk.</li> <li>We will continue to manage and monitor our climate-related risks and our lending activities and aim to orient new and existing business efforts toward net zero by 2050. We aim to do this by further strengthening our operating model and increasing our efforts in the field of transition and green finance.</li> <li>In AM, during 2023, we intend to implement revisions to fund documentation and investment management agreements to align with our net-zero-aligned frameworks. We continue to invest in the necessary data and infrastructure to support management and monitoring of portfolios, issuer alignment and real economy decarbonization.</li> <li>Our Global Wealth Management (GWM) business division continues to work toward mainstreaming sustainable and impact investments for our private clients.</li> </ul>	<ul style="list-style-type: none"> <li>See SR22 – “Our approach to sustainable finance” subsection, for examples of our sustainable finance offering, including products and services launched in 2022.</li> <li>See SR22 – Appendix 1 – “Sustainable finance at UBS – additional information” subsection for a selected list of the products and services we offer to support our net-zero transition strategy and SR22 – Appendix 1 – “Climate-related materiality assessment” subsection to see how we incorporate climate considerations into our product development and strategy.</li> <li>See SR22 – “Outlook for net zero for lending” subsection and SR22 – “Supporting the net-zero goals of our investing clients” subsection for information on our net-zero alignment approach.</li> </ul>
<b>3 Activities and decision-making</b>	<ul style="list-style-type: none"> <li>Our Group Risk Control unit manages our sustainability and climate risk (SCR) program to further integrate SCR into our various risk management frameworks and related processes. We are further strengthening our operating model to ensure we monitor and steer our clients’ assets and our own assets effectively. The operating model encompasses the processes we follow to aim to align new and existing business toward net zero by 2050.</li> <li>We are integrating our net-zero targets as part of standard financial and non-financial risk processes to ensure that material sustainability and climate risks are identified, assessed, approved, and escalated in a timely manner. These integrations cover processes across client onboarding, transaction due diligence, product development and investment decision processes, own operations, supply chain management, and portfolio reviews.</li> </ul>	<ul style="list-style-type: none"> <li>See SR22 – “Managing sustainability and climate risks” subsection for a description of our risk processes and our climate risk program (including the board-set risk appetite, a carbon utilization measurement conceptualized in 2022 and aligned with our net-zero implementation and targets, and a company / asset-level transition and physical risk scorecard).</li> <li>See SR22 our sustainability report’s Supplementary Information for “Informing and evolving our strategy – our materiality assessments” subsection for sustainability and climate risk assessment of products, services and activities deemed as having high risk.</li> </ul>
<b>4 Policies and conditions</b>	<p>Our comprehensive and long-standing SCR policy framework:</p> <ul style="list-style-type: none"> <li>applies Group-wide to relevant activities, including client and supplier relationships;</li> <li>is integrated into management practices and control principles and overseen by senior management;</li> <li>supports transition toward a net-zero future; and</li> <li>focuses on priority sectors and activities and other sectors that are carbon high-emitting (or otherwise harmful to the climate), to define business boundaries in line with our net-zero ambitions and priorities.</li> </ul> <p>We will continue to enhance and refine our SCR policy framework in line with the evolving regulatory guidance and market practices.</p>	<ul style="list-style-type: none"> <li>See SR22 – Appendix 2 – “Our sustainability and climate risk policy framework” subsection setting our standards including “Controversial activities – where UBS will not do business” and “Areas of concern – where UBS will only do business under stringent criteria”.</li> <li>See SR22 – Appendix 2 – “Forests and biodiversity” subsection describing our view on deforestation and forest degradation.</li> <li>See our <i>Asset Management Sustainability Exclusion policy</i> for details about AM’s exclusion approaches where we exclude individual companies or industries from a portfolio, either because their activities do not meet certain ESG criteria, and/or they do not align with the client’s values and/or UBS’s.</li> </ul>
Engagement strategy		
<b>5 Clients and portfolio companies</b>	<ul style="list-style-type: none"> <li>We work alongside our clients and portfolio companies to support their efforts to transition in line with the Paris Agreement-aligned 1.5°C net-zero pathways. We proactively and constructively provide feedback and support to our corporate clients on their net-zero-aligned transition strategies, plans and progress.</li> <li>For transition of investment portfolio, we see our active ownership strategy as a powerful tool in influencing corporate behavior to achieve real-economy outcomes. We have had a dedicated climate engagement program in place since 2017 to address climate-related risks with measurable progress tracked. Similarly, and in line with our intermediate net-zero targets for 2030, we engage with our corporate clients on these matters.</li> </ul>	<ul style="list-style-type: none"> <li>See SR22 – “Sustainable investing for our clients” subsection for details about how we approach active ownership and a selection of our engagement programs.</li> <li>See SR22 – “Supporting the net-zero goals of our investing clients – Asset Management” subsection for our dedicated climate engagement program.</li> <li>See our Asset Management Stewardship Report and our <i>Global Stewardship Policy</i> for information about our active approach to stewardship as a crucial part of any sustainable investing strategy across asset classes through engagement, proxy voting and advocacy, enabling us to work with firms to influence behaviors, drive changes and achieve better outcomes.</li> </ul>
<b>6 Industry</b>	<ul style="list-style-type: none"> <li>We proactively engage with peers in the industry to: i) as appropriate and in line with local rules and regulations, exchange transition expertise and collectively work on finding solutions to common challenges; and ii) represent the financial sector’s views cohesively to external stakeholders, such as clients and governments.</li> </ul>	<ul style="list-style-type: none"> <li>See SR22 – Supplementary Information document – “Evolving and informing our strategy – our contributions to the advancement of sustainability” subsection for how we engage with stakeholders on key climate topics on a regular basis.</li> </ul>
<b>7 Government and public sector</b>	<ul style="list-style-type: none"> <li>We proactively engage in political initiatives relating to climate-related issues based on our climate strategy and net-zero planning. We focus our engagement around an orderly transition that is aligned with the Paris Agreement.</li> <li>We actively participate in political discussions to share our expertise on proposed regulatory and supervisory changes across regions on a regular basis in our key markets.</li> </ul>	<ul style="list-style-type: none"> <li>See SR22 – Supplementary Information document – “Supporting our strategic goals – our engagement in partnerships” subsection for how we take action both on our own and in partnership with other large investors, standard setters, regulators, political parties, our clients and our peers, as well as our communities and our own employees and how we advance sustainability in the financial sector.</li> </ul>

## Metrics and targets

<b>8 Metrics and targets</b>	<ul style="list-style-type: none"> <li>– We support the goals of the Paris Agreement which includes aligning our own operations and business activities with the pathway of a five-step net-zero plan to: (i) measure carbon emissions; (ii) define a roadmap and set targets; (iii) reduce climate impact; (iv) finance climate action and support the transition of our clients; and (v) communicate and engage.</li> <li>– We have established a suite of metrics and targets to drive execution of our net-zero transition plan and monitor the progress of our results in the near, medium and long term.</li> </ul>	<ul style="list-style-type: none"> <li>– See SR22 – “Our aspirational goals and progress” subsection for a description of our aspirational goals pertaining to the planet and progress in 2022.</li> <li>– See SR22 – “Reducing our environmental footprint” subsection for a description of how we will manage any residual scope 1 and 2 emissions that cannot be mitigated through reducing at source.</li> <li>– See SR22 – “Monitoring the environmental impact of our supply chain” subsection, SR22 – “Managing our supply chain responsibly” for our actions pertaining to our supply chain.</li> <li>– See SR22 – Appendix 3 – “Climate-related methodologies – net zero approach for our financing activities” subsection for further information about our methodology, targets and sector-by-sector approach and metrics.</li> <li>– See SR22 – Appendix 3 – “Climate-related methodologies – net zero approach for our financing activities” subsection, and SR22 – Appendix 3 – “Climate-related methodologies – defining net-zero aligned investment portfolios” subsection for a description of assumptions, scope, uncertainties and key methodologies associated with the transition plan, as well as our view on carbon sequestration.</li> </ul>
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## Governance

<b>9 Roles, responsibilities and remuneration</b>	<ul style="list-style-type: none"> <li>– Our climate strategy and activities are overseen at the highest level of our firm. The Board of Directors’ Corporate Culture and Responsibility Committee is the body primarily responsible for corporate culture, responsibility and sustainability including climate). It oversees our sustainability and impact strategy and activities and approves Group-wide sustainability and impact objectives.</li> <li>– Our Group Executive Board (the GEB) Lead for Sustainability and Impact steers our efforts on sustainability (including climate). ESG-related goals are also assigned for all GEB members. We have established a Sustainability and Climate Task Force to implement our firm’s climate strategy and to monitor progress against that strategy.</li> <li>– We are continuously improving the governance, execution and control of the processes in place to support our net-zero efforts.</li> </ul>	<ul style="list-style-type: none"> <li>– See SR22 – “Our sustainability governance” subsection for a description of how UBS governs its sustainability and climate strategy.</li> <li>– See SR22 – “Pay our people fairly and equitably” subsection and our UBS Compensation Report 2022 at <a href="https://ubs.com/annualreporting">ubs.com/annualreporting</a> for information about how sustainability objectives are included in the scorecards for our Group CEO and members of the GEB that impact the relevant performance assessment and compensation decisions.</li> <li>– See SR22 – Appendix 5 – “Independent assurance report by Ernst &amp; Young” subsection for the independent assurance report by EY.</li> </ul>
<b>10 Skills and culture</b>	<ul style="list-style-type: none"> <li>– To support the development and implementation of our net-zero transition plan, we implement a change management program and ensure alignment and embed the plan into the organization’s culture and practices, as well as providing support to individuals so that they have sufficient skills and knowledge to perform their roles.</li> <li>– We provide specialized and awareness training sessions on sustainability and climate risk. For example, in 2022 we continued our climate risk-related training for our employees and also delivered awareness training across our business divisions and Group Functions that includes climate risk aspects.</li> </ul>	<ul style="list-style-type: none"> <li>– See SR22 – “Climate risk management and control” subsection for details about training provided to employees with regard to climate risk.</li> <li>– See SR22 – Appendix 2 “Sustainability-related training and raising awareness” subsection for details about how we engage in education and awareness raising for staff, clients and local communities, regarding corporate responsibility and sustainability topics and issues.</li> </ul>

# Climate-related methodologies – net-zero approach for our financing activities

As part of our *net-zero commitment* (available on [ubs.com/gri](https://ubs.com/gri)) in April 2021, we pledged to set targets that further align our financing activities with the Paris Agreement and became a founding member of the Net-Zero Banking Alliance (the NZBA). Collaborative organizations such as the NZBA or the Partnership for Carbon Accounting Financials (PCAF) are gradually developing pertinent standards and guidelines or expanding on existing ones. However, currently divergence continues to exist in how financial institutions approach the matter. At UBS, we strive to achieve appropriate levels of comparability and consistency throughout the measurement and reporting of our carbon footprint.

› **Refer to the “Appendix 2 – Strategy” section of this report for an overview of key climate- and nature-related organizations**

In this section, our focus is on our net-zero approach for our financing activities and the process we are following to define the sectoral ambitions for our lending portfolio. It also details pertinent climate-related methodologies and scenarios used in this process.

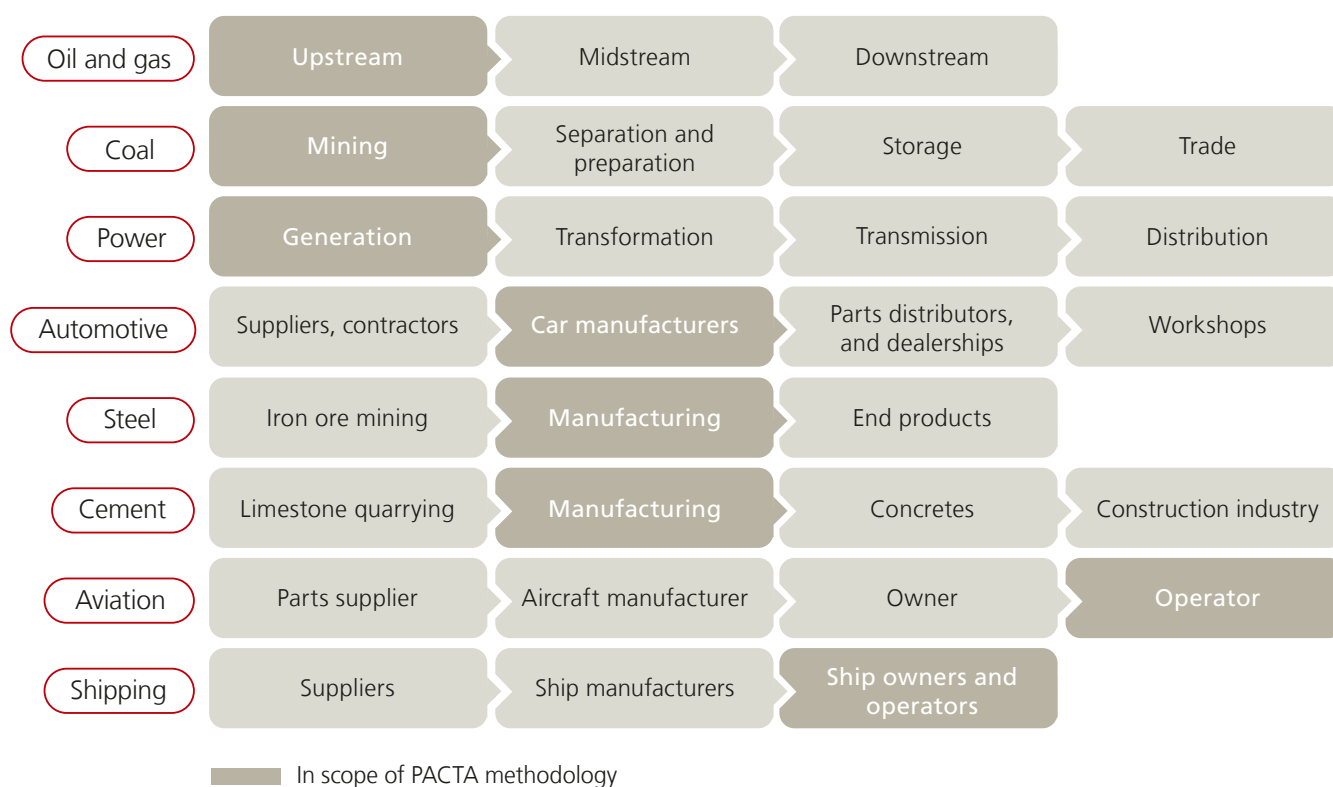
## Scope and boundaries

The scope covered by our net-zero ambitions and a first assessment of the overall emissions associated with UBS's corporate lending and real estate mortgages. Our net-zero ambitions are based on the full lending commitment made to our clients. This includes our outstanding loans, as well as undrawn irrevocable commitments, i.e., amounts that we would be obliged to provide if requested by a counterparty. In our view, this is the most relevant approach to measure and steer our lending portfolio toward our ambitions. The preliminary assessment of total financed emissions is calculated based on our outstanding lending exposure in line with PCAF guidance.

We recognize that capital markets facilitation also plays an important role in the financing of our clients. These transactions are therefore subject to our sustainability and climate risk (SCR) policy framework but are currently not part of our net-zero analysis. There is currently no accepted industry-wide standard on how to account and aggregate carbon emissions facilitated by capital market activities. We are engaging with standard setters such as PCAF on emerging approaches in order to consider those activities in our future ambitions.

For non-financial corporate loans, we have prioritized the climate-sensitive sectors recommended by the NZBA where we have material financial exposure and where methodologies and metrics exist to measure and steer the transition toward net zero. In addition, our net-zero approach is closely aligned to the methodology outlined by Paris Agreement Capital Transition Assessment (PACTA) white paper. As such, we have considered parts of the value chain within climate-sensitive sectors that hold the bulk of the impact on the climate system and where the decision-making power or capacity to reduce carbon emissions directly or indirectly resides.

## Part of the sectors' value chains in scope



Source: PACTA for Banks Methodology document – climate scenario analysis for corporate lending portfolios – version 1.2.1.

## Metrics

### Scope 1, 2 and 3 greenhouse gas emissions

As defined in PCAF standards<sup>1</sup>, greenhouse gas (GHG) emissions accounting refers to the processes required to consistently measure the amount of GHGs generated, avoided or removed by an entity, allowing it to track and report these emissions over time. The emissions measured are the seven gases mandated under the Kyoto Protocol and to be included in national inventories under the United Nations Framework Convention on Climate Change (the UNFCCC): carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>). For ease of accounting, these gases are usually converted to and expressed as carbon dioxide equivalents (CO<sub>2</sub>e).

According to PCAF's GHG Protocol Corporate Accounting and Reporting Standard (the GHG Protocol), direct emissions are emissions from sources owned or controlled by the reporting company. Indirect emissions are emissions that are a consequence of the operations of the reporting company but that occur at sources owned or controlled by another company.

Direct and indirect emissions are further categorized by scope and distinguished according to the source of the emissions and where in an organization's value chain the emissions occur. The three scopes defined by the GHG Protocol – scopes 1, 2 and 3 – are briefly described below:

- Scope 1: Direct GHG emissions that occur from sources owned or controlled by the reporting company, i.e., emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.
- Scope 2: Indirect GHG emissions from the generation of purchased or acquired electricity, steam, heating, or cooling consumed by the reporting company. Scope 2 emissions physically occur at the facility where the electricity, steam, heating, or cooling is generated.
- Scope 3: All other indirect GHG emissions (not included in scope 2) that occur in the value chain of the reporting company. Scope 3 can be broken down into upstream emissions that occur in the supply chain (for example, from production or extraction of purchased materials) and downstream emissions that occur as a consequence of using the organization's products or services.

<sup>1</sup> PCAF (2022). The Global GHG Accounting and Reporting Standard Part A: Financed Emissions. Second Edition.

The GHG Protocol further categorizes scope 3 emissions into 15 upstream and downstream categories. For banks such as UBS, emissions financed via lending activities fall under scope 3 downstream emissions, more precisely under Scope 3 category 15.

Financed emissions reported under scope 3 category 15 include apportioned scope 1 and 2 emissions of the counterparties or assets being financed. Scope 3 is included for certain sectors where methodologies and data are widely available. We have included scope 3 emissions in our assessment of the fossil fuel, power generation and automotive sectors.

### Absolute financed emissions

Financed emissions represent the carbon emissions of our corporate clients attributed to UBS. Following PCAF guidance, the attribution factor is the fraction of UBS's loan exposure to the client's enterprise value including cash (EVIC) or the sum of equity and debt for private companies.

$$\text{Corporate financed emissions} = \sum \left( \text{Corporate emissions} \times \frac{\text{Financing to corporate}}{\text{EVIC or Equity + Debt}} \right)$$

In the case of real estate, the attribution is based on the loan-to-value (LTV) of the property. In accordance with PCAF guidance, residential real estate LTV is calculated using the original property value, while for commercial real estate the most recently available property valuation is used.

$$\text{Real estate financed emissions} = \sum (\text{Real estate emissions} \times \text{LTV})$$

### Physical emissions intensity

Physical emissions intensity is a metric that normalizes a company's emissions by its output (e.g., the megawatt-hours or metric tons of cement produced). Through this metric we can monitor whether our clients are becoming increasingly efficient. The physical emissions intensity effectively demonstrates the progress made to transition climate-sensitive sectors in our lending portfolio toward net zero.

$$\text{Corporate physical emis. intensity} = \sum \left( \frac{\text{Corporate emissions}}{\text{Corp. output (e.g., MWh, tons produced)}} \times \frac{\text{Financing to corporate}}{\text{Total sector financing}} \right)$$

For real estate, the physical emissions intensity is calculated by dividing the sum of financed emissions by the sum of financed surfaces.

$$\text{Real estate physical emissions intensity} = \frac{\sum (\text{Real estate emissions} \times \text{LTV})}{\sum (\text{Real estate surface} \times \text{LTV})}$$

## Quantifying clients' emissions

To estimate the emissions from our clients we rely on data available in their own disclosures, data from specialized third-party providers and internal data. Current limitations on the availability of emissions data at company or asset level required us to include approximations in the calculations; for example, by applying a sector-level proxy where company- or asset-level data is not available.

We expect the availability and quality of emissions data to improve in the next few years. Improved data may be used to strengthen the robustness of the reporting, which may result in restatements of our net-zero ambitions and total financed emissions over time. In the preliminary assessment of our total financed emissions, we have included PCAF quality scores facilitating data transparency and encouraging improvements to data quality in the medium and long term (see the PCAF data quality scoring scale below).

The inherent one-year time lag between the as-of date of our lending exposure and the as-of date of emissions can be explained by two factors: corporates disclose their emissions in annual reporting only a few months after the end of a financial year; and specialized third-party data providers take up to nine months to collect disclosed data and make it available to data users. Consequently, the baselines for our net-zero ambitions are based on year-end 2020 lending exposure and 2019 emissions data. Our 2021 emissions actuals are based on year-end 2021 lending exposure and 2020 emissions data.

### PCAF data quality scoring from 1 to 5

		Corporate Financing	Real Estate Financing
	Certain	Score 1 Verified emissions disclosed by the company	Emissions estimated based on primary energy consumption data and energy supplier-specific emissions factors
		Score 2 Unverified emissions disclosed by the company <b>or</b> estimated based on the company's energy consumption and related emissions	Emissions estimated based on primary energy consumption data and average emissions factors per energy source
		Score 3 Emissions estimated based on the company's primary production and emissions factors per unit of production	Emissions estimated based on average energy consumption per energy label and surface area
		Score 4 Emissions estimated based on the company's revenues and emissions factors per unit of revenue	Emissions estimated based on average energy consumption per location, building type, and surface area
	Uncertain	Score 5 Emissions estimated based on average emissions per US dollar invested in a sector	Emissions estimated based on average energy consumption per location, building type, and number of buildings

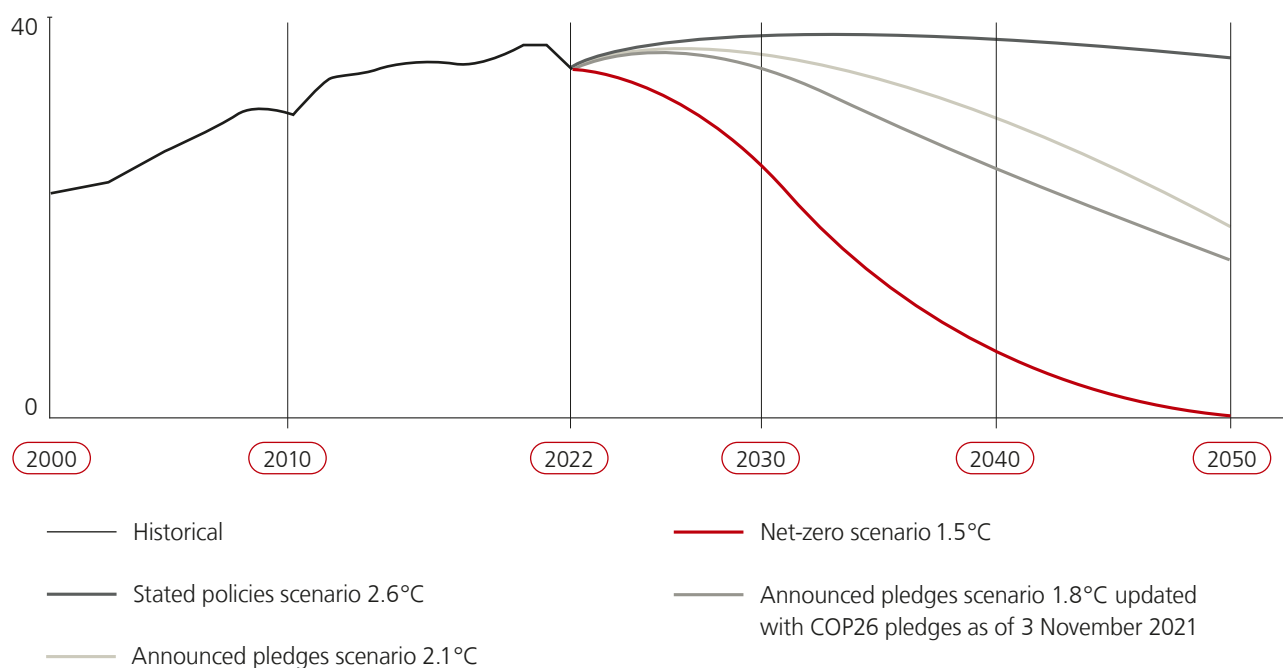
Source: PCAF 2020 "The global GHG accounting and reporting standard for the financial industry."

## Climate scenarios

We selected the scenario – IEA NZE by 2050 – in accordance with the NZBA guideline, as one of the most recent and widely accepted models that achieves a temperature increase of 1.5°C by 2050. Over time we will seek to augment our sector pathways, as we gain greater clarity on the validity of key technological and regulatory uncertainties identified within the IEA NZE scenario (e.g., biofuels, carbon capture utilizations or CCUs). Until that point, the possibility of overshoot is factored into certain sector pathways due to the heavy reliance on external factors beyond our steering capabilities.

## CO<sub>2</sub> emissions in world energy outlook scenarios over time, 2000–2050

In Gt CO<sub>2</sub>



Source: IEA.

## Net-zero-related materiality assessment

NZBA sectors and targets	2022		2021		Net zero	Carbon emissions scopes	Unit	2020 baseline	2021 actuals	2020–2030 target
	Gross exposure (USD billion) <sup>1</sup>	Covered with target (USD billion)	Gross exposure (USD billion) <sup>1</sup>	Covered with target (USD billion)						
Real estate										
– Residential real estate	158.9	156.9	155.9	152.9	Private clients with mortgages	1,2	kg CO <sub>2</sub> e / m <sup>2</sup>	30	27	(42%)
– Commercial real estate	47.1	45.5	44.7	43.6	Real estate financing	1,2	kg CO <sub>2</sub> e / m <sup>2</sup>	32	30	(44%)
Fossil fuels (coal, oil and gas) <sup>2</sup>	1.3	0.5	1.0	0.7	B.05, B.06, C.19	1,2,3	t CO <sub>2</sub> e, baseline indexed as 100	100	58	(71%)
Power generation	2.2	1.8	1.5	1.2	D.35.11, D.35.13	1,2,3	kg CO <sub>2</sub> e / MWh	238	210	(49%)
Cement	0.5	0.5	0.5	0.5	C.23.51	1,2	t CO <sub>2</sub> e / t cementitious	0.62	0.61	(15%)

NZBA sectors without target	2022		2021		NACE codes in scope of PACTA methodology
	Gross exposure (USD billion) <sup>1</sup>	PACTA scope (USD billion)	Gross exposure (USD billion) <sup>1</sup>	PACTA scope (USD billion)	
Transportation					
– Automotive	0.4	0.1	0.4	0.1	C.29
– Air	1.8	0.1	2.5	0.5	H.51
– Shipping	0.4	0.3	0.4	0.3	H.50
Aluminum	0.0	0.0	0.0	0.0	C.24.42
Steel	0.1	0.1	0.1	0.1	C.24.1
Agriculture <sup>3</sup>	3.0	0.2	4.1	0.2	A.01

<sup>1</sup> Gross exposure includes total loans and advances to customers and guarantees as well as irrevocable loan commitments (within the scope of expected credit loss). <sup>2</sup> Commodity Trade Finance excluded. <sup>3</sup> Refer to World Business Council for Sustainable Development publication “An Introductory Guide for Net Zero Target Setting for Farm-Based Agricultural Emissions.”



Based on a UBS-internal analysis (using data supplied by the European Banking Authority), our lending exposure to the most carbon-intensive sectors is already low compared with our peers. This has the advantage of making us well-aligned with the transition to a low-carbon economy. However, it also means that for us, the number of sectors for which our volumes justify setting meaningful net-zero targets is reduced, especially since the bulk of our lending in some NZBA sectors is to parts of the value chain that are not currently in focus of target setting for net zero.

We have set net-zero targets for five sectors that have a material share of our lending activities and carbon emissions. Targets would not be material at present for aluminum, iron and steel because of the limited exposure. For transportation and agriculture, the clear bulk of our exposure is in business activities that are not in the current scope of target-setting standards (e.g., PACTA for Banks). The developments of target-setting standards and/or portfolio exposure to those sectors are being monitored.

### Further enhancements

Like many of our peers, we are at the start of our net-zero journey and have created our methodology based on current industry best practice. As the world's pathway to net zero is still at a developing stage, we expect continued advances and evolutions to our approach. We see four key factors for change: market practices will continue to evolve, science-based industry pathways may be updated, client data will become more readily available, and new methodologies will continue to emerge.

Specifically, adjustments will be needed, when scope 3 is rolled out to additional sectors beyond the fossil fuel, power generation and automotive industries after 2023, or as new target-setting guidance emerges.

Our selected scenario (IEA NZE by 2050) is currently used by the industry, but other scenarios may emerge that are more specific to our lending portfolio and geographic exposure (e.g., Switzerland). Additionally, IEA NZE is also subject to new updates and new releases over time as the science and projections develop.

Regarding data, we used a combination of data sources to build our emission baseline and targets. However, client information, either directly, or from public sources or third-party vendors, remains limited. As more information becomes available, we will be able to refine our footprint.

We have developed our methodology based on leading practices and reported where possible, despite the limitations we face due to the nascency of the challenge. As more methodologies become available for additional sectors or asset classes where UBS has relevant exposures, we will test and adopt them accordingly. The remaining improvements we can identify are reliant on external factors. We continue to await these and will make refinements wherever necessary.

### Carbon sequestration

We are dedicated to helping our clients in any way possible to guide them toward net zero. Our engagement plan prioritizes emissions reductions. While we recognize that not all scenarios or frameworks allow for offsetting, we anticipate that carbon removal offsets will be needed to supplement our net-zero targets, and the reduction strategies of some of our clients. For example, certain industrial processes cannot viably achieve absolute zero emissions. Those industries, however, still provide products and services that are important to society and are likely to remain relevant in the future. In these cases, removal offsetting can help to address residual emissions from such sectors. While our selected scenario of IEA NZE does not contemplate offsets, it does include the development of robust carbon sequestration activities.

We strive to support our clients' transitions through limited use of carbon sequestration, in accordance with the NZBA. Offsets shall be additional, certified, and restricted to carbon removals to balance residual emissions where there are limited technological or financially viable options to eliminate emissions. We plan to evaluate the use of offsets and sequestration on a case-by-case basis and to take a variety of factors into consideration in assessing their applicability in our clients' net-zero efforts, including the disclosure recommendations of the various frameworks to which we are signatory. However, as technology and methodologies continue to develop, our approach to offsets will continue to evolve.

## Climate-related methodologies – defining net-zero-aligned investment portfolios

Our Asset Management division's methodology is based on a framework derived from the Paris Aligned Investment Initiative's "Net Zero Investment Framework" and the Science Based Targets initiative's (SBTi) definition of net zero for financial institutions. The framework defines net-zero-aligned investment portfolios as those managed in a way that is consistent with achieving global net-zero greenhouse gas (GHG) emissions by 2050 and defines eligible metrics and appropriate guidelines for individual asset classes.

The following guiding principles are used when defining an investment portfolio as net-zero-aligned:

- The portfolio has a **defined decarbonization target** and/or invests in **climate solutions** that enable net-zero global GHG emissions by 2050.
- The portfolio makes a **real economy contribution**: relevant companies, partners, managers, borrowers, tenants and vendors that are not currently meeting or aligned with net zero are the subject of direct or collective engagement and stewardship actions.
- **Offsets** may be used to enable or support long-term carbon removal where there are no technologically and/or financially viable alternatives to eliminate emissions.
- Monitoring and **annual disclosure** of progress toward portfolio-level targets.

Portfolio target levels are expressed in terms of interim milestones or an annualized decarbonization rate (absolute or intensity) and reference a relevant science-based net-zero pathway (currently defined in relevant climate models as 1.5°C). Targets are set using scope 1 and 2 emissions; inclusion of scope 3 is guided by availability of quality data and regulatory requirements. Decarbonization can be achieved through various approaches depending on the strategy; some examples include tracking a relevant index that follows a net-zero pathway, actively managing the portfolio carbon profile vs. a relevant benchmark or managing carbon reduction to a specified pathway.

Asset Management's framework will evolve over time as further data and methodologies become available and as the real-economy decarbonization process progresses. We are making our commitments in the expectation that governments will follow through on their own commitments to ensure the objectives of the Paris Agreement are met, including increasing the ambition of their Nationally Determined Contributions, and in the context of our legal duties to clients and unless otherwise prohibited by applicable law.

## Climate-related methodologies – our own operations

We have prepared our greenhouse gas (GHG) reporting in accordance with key concepts and requirements stated by the International Organization for Standardization (ISO) in ISO 14064-1:2018 (specification with guidance at the organization level for quantification and reporting of GHG emissions and removals) and the World Business Council for Sustainable Development and World Resources Institute in the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard.

All GHG emission figures are in metric tons of carbon dioxide equivalents (CO<sub>2</sub>e) and include three of the six GHGs covered by the Kyoto Protocol: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O). We have left hydrofluorocarbon (HFC) emissions out of our reporting as they are not a material source of GHGs for our business. We have no GHG sources contributing to perfluorocarbons (PFCs) or sulfur hexafluoride (SF<sub>6</sub>) emissions.

Direct GHG emissions and indirect GHG emissions from electricity have been reported by UBS Group AG and its branches and representative offices, and entities where UBS has operational control and through which UBS conducts its banking and finance business or provides services in support of such business. Based on the GHG protocol scope 2 guidance and scope 3 standard, energy consumption for heating purposes of leased space where UBS does not have any operational control of the heating system is classified as other indirect GHG emissions.

We have determined the GHG emissions associated with UBS's activities on the basis of measured or estimated energy and fuel use, multiplied by relevant GHG emission factors. Where possible, fuel or energy use is based on direct measurement, purchase invoices or actual mileage data covering more than 80% of our reported energy usage. In other cases, it has been necessary to make estimations.

We have used published national conversion factors and global warming potentials to calculate emissions from operations. In the absence of any such national data, we have used the UK Government GHG Conversion Factors for Company Reporting for the calculation of GHG emissions.

The GHG base year was originally set as 2004 (July 2003 to June 2004), as that was the first year we reported detailed GHG emissions verified according to ISO 14064:2018. The 2004 GHG footprint baseline is 360,502 metric tons and consists of 41,858 metric tons of scope 1 emissions, 219,727 metric tons of net scope 2 emissions and 98,918 metric tons of scope 3 emissions. The appropriateness of the base year is reviewed on an annual basis. In 2006, we set global quantitative objectives for energy, paper, waste and water for 2009. They have been revised and extended four times to date and covered the periods 2009 to 2012, 2012 to 2016 and 2016 to 2020. The new targets relating to GHG and other environmental performance indicators are set for 2025 and have 2020 as a baseline.

## Climate-related methodologies – identifying GHG key vendors in our supply chain

We have used a combination of our annual spend with vendors and Economic Input-Output Life Cycle Assessment (EIO-LCA) emission factors per industry to identify likely top emitters in our supply chain. When identifying supply chain relevant top emitters, we excluded any spend that is covered in scopes 1 and 2 or non-vendor relevant scope 3 subcategories. Vendors that collectively account for >50% of our estimated vendor GHG emissions are called GHG key vendors.

Formula:

### Sum across purchased goods or services

$$\sum \frac{\text{(value of purchased goods or services (USD) \times \text{emission factor of purchased good or service per unit of economic value (kg CO}_2\text{e/USD))}}{\text{of economic value (kg CO}_2\text{e/USD))}}$$

Our GHG key vendor list is revised annually to take into consideration changes in spend and business relationships.

# Appendix 5 – Other

## UBS Europe SE considerations for sustainability and climate management

UBS Europe SE is a significant entity of UBS Group. Therefore, UBS Group's management of sustainability and climate risks and related risk assessments implicitly cover UBS Europe SE's portfolios. In addition, UBS Europe SE maintains an explicit management and assessment of sustainability and climate risks. This includes a tailored risk strategy and business strategy, review of the UBS net-zero commitment, as well as dedicated materiality assessments and stress testing with respect to sustainability and climate risks.

### Strategy & Business Planning

Pursuant to the German Banking Act in connection with the European Banking Authority guidelines on Internal Governance and the Minimum Requirements for Risk Management (MaRisk) published by the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht – BaFin), UBS Europe SE manages a robust and durable business strategy. The business strategy sets targets for all important business activities and defines the measures required to achieve these targets, which are updated at least on an annual basis. Some of these targets and measures consider sustainability and climate risks. Sustainability and climate risks are also included in the risk strategy where a risk appetite statement for these risks is defined.

### Net zero and UBS Europe SE

As part of the UBS Group, UBS Europe SE is fully committed to supporting the goals of the Paris Agreement, which includes aligning our own operations and business activities with the pathway of a five-step net-zero plan to: (i) measure carbon emissions; (ii) define a roadmap and set targets; (iii) reduce climate impact; (iv) finance climate action and support the transition of our clients; and (v) communicate and engage. These ambitions, activities and related targets are coordinated at the UBS Group level, and then reviewed from a UBS Europe SE materiality perspective.

### Climate risk scenario analysis and stress testing

UBS Europe SE has participated in the ECB supervisory climate risk stress test, which assesses how prepared banks are for dealing with financial and macroeconomic shocks stemming from climate risk. The exercise was conducted in the first half of 2022. The results indicated low exposure to corporate counterparties in high-risk sectors.

UBS Europe SE's internal climate risk scenario analysis and stress testing capabilities are currently being developed aligned to UBS Group. UBS is developing a climate risk scenario analysis and stress testing framework, which includes the development of internal climate risk scenarios covering transition and physical risks. Further, UBS Group is in the process of developing corresponding climate risk models for major risk types including credit risks and non-financial risks. This will allow risk assessments across different severities of climate change and time horizons.

Currently, UBS Europe SE assesses climate risk in an internal capital adequacy assessment process (ICAAP)-related annual sensitivity assessment. This assessment covers most relevant credit risks in the ICAAP economic perspective. It is based on the heatmaps for physical and transition risks that primarily focus on sectoral vulnerabilities.

Overall, the credit risk sensitivity assessment as well as the results from the ECB supervisory climate risk stress test indicate a low sensitivity to climate risk and therefore a low relevance for UBS Europe SE's risk profile and business model.

### Materiality assessment

UBS Europe SE considers sustainability and climate risk as part of the regular risk identification process that feeds into the Risk Strategy. This includes an evaluation whether SCR has a material impact on other risk categories. For example, this assessment leverages results from the credit risk sensitivity analysis. Based on these evaluations, SCR is currently assessed as not material after consideration of mitigating measures (see section UBS management of sustainability and climate risks). This indicates a low relevance for UBS Europe SE's risk profile and business model.

## Key terms and definitions

### Sustainability

Is commonly defined as “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations (UN) Brundtland Commission, 1987). In this way, we sometimes refer to sustainability to imply a broader scope of exhausted resources beyond those that impact climate change. Our ambition is to conduct business and operations without negatively impacting the environment, society or the economy as a whole and, through our sustainability disclosure, be transparent about how we are pursuing this.

### Sustainable Development Goals (the SDGs)

The 2030 Agenda for Sustainable Development, adopted by all UN member states in 2015, provides a shared blueprint for peace and prosperity for people and the planet. At its heart are the *17 UN Sustainable Development Goals* (available on [sdgs.un.org/goals](https://sdgs.un.org/goals)), the SDGs, which are an urgent call for action by all countries – developed and developing – in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

### ESG (Environmental, Social, Governance)

A framework to help stakeholders understand how an organization is managing risks and opportunities related to ESG criteria or factors. It is often used in the context of investing, but – beyond the investment community – clients, suppliers, and employees are also increasingly interested in how sustainable an organization’s operations are.

### Sustainable finance

Sustainability focus: Strategies that have explicit sustainable intentions or objectives that drive the strategy. Underlying investments may contribute to positive sustainability outcomes through products / services / use of proceeds.

Impact investing: Investment strategies that have an explicit intention to generate measurable, verifiable, positive sustainability outcomes. Impact generated is attributable to investor action and/or contribution.

Green, social, sustainability and sustainability-linked bonds: Debt instruments with a commitment to use the proceeds to (re-)finance green or sustainable projects, aligned with the voluntary guidelines in the pertinent International Capital Market Association (ICMA) Principles.

### Low-carbon economy

Refers to a type of decarbonized economy that is based on low energy consumption and low levels of greenhouse gas (GHG) emissions.

GHG emissions

Scope 1: Accounts for GHG emissions by UBS.

Scope 2: Accounts for indirect GHG emissions associated with the generation of imported / purchased electricity (grid average emission factor), heat or steam.

Scope 3: Accounts for GHG emissions resulting from activities from assets not owned or controlled by the reporting organization, but that the organization indirectly impacts in its value chain.

Net zero: Refers to cutting GHG emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere.

GHG key vendor: A top GHG scope 3 emitter relative to UBS’s overall scope 3 supply chain emissions and with which UBS has a long-term ongoing relationship.

### Sustainability disclosure

Global Reporting Initiative (GRI): Provider of the world’s most widely used sustainability disclosure standards (the GRI Standards).

Task Force on Climate-related Financial Disclosures (TCFD): Provider of climate-related financial disclosure recommendations designed to help companies provide better information to support informed capital allocation.

Taskforce on Nature-related Financial Disclosures (TNFD): Provider of nature-related financial disclosure recommendations designed to help companies provide better information to support informed capital allocation.

Value Reporting Foundation SASB Standards: Disclosure standards to guide the disclosure of officially declared material sustainability information by companies to their investors.

World Economic Forum International Business Council (WEF IBC): Provider of the Stakeholder Capitalism Metrics, which offer a set of universal, comparable disclosures focused on people, planet, prosperity and governance that companies can report on, regardless of industry or region.

### Materiality assessments

With regard to the materiality assessments included in this report (GRI-based and climate-related), the GRI requires companies to determine material topics that “represent the organization’s most significant impacts on the economy, environment, and people, including impacts on their human rights.” The TCFD requires companies to conduct a double materiality assessment that looks at both the inside-out impact the company has on the environment and the outside-in impact climate-related activities might have on the company performance.

### UBS-related terms used in this report

Unless the context requires otherwise below terms are used for:

Terms	Used for
“UBS,” “UBS Group,” “UBS Group AG consolidated,” “Group,” “the Group,” “we,” “us” and “our”	<i>UBS Group AG and its consolidated subsidiaries</i>
“UBS Group AG” and “UBS Group AG standalone”	<i>UBS Group AG on a standalone basis</i>

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