Avient Climate-related Scenario Analysis Summary

The following summarizes Avient's climate-related risks and opportunities analyzed across multiple scenarios, in alignment with the Task Force on Climate-Related Financial Disclosures (TCFD) framework.



¹ International Energy Agency World Energy Outlook 2021

| | BUSINESS IMPLICATIONS AND STRATEGIC RESPONSES | | | | | | | |
|---|--|------|--|-----|---|------|--|--|
| | IMPACT DRIVER & TIME HORIZON | | NET ZERO FUTURE | | PLEDGING PROGRESS | | STEADFAST POLICY | |
| • | Policy & Legal Risk M L | Â | Carbon pricing exposure in USA, China, Germany and Spain Fines and/or compliance measures: - Clean electrification of operations; - Emissions intensive equipment phase-out; - Circular economic and materials efficiency strategies; - Net-zero carbon building standards; - Mandatory energy management systems and audits | ~T~ | Carbon pricing exposure in USA, China, Germany, Spain, and Saudi Arabia Increased fines and compliance measures related to: • Phase-outs aligned with Nationaly Determined Contributions (NDC); • Renewable energy sourcing; • Material efficiency standards (minimum recycled content for packaging, and enhanced vechicle air quality) | AC I | Some regional carbon pricing exposure in China, Germany and Spain | |
| • | Technology Risk S M | ~~ | Capital expenditures to subsitute emissions intensive technologies Declining price point competitiveness caused by decarbonization pass through costs | | R&D costs to transition to design and deploy lower-emissions technologies | ~ | Slower substitution of materials with lower- emission options | |
| • | Market Risk S M | C A | Declining redundant supply and sourcing more sustainably causes raw material costs to rise Customers demand to lower their scope 3 emissions from purchased goods and services across all markets | | Increasing competition from existing and unforeseen polymer and non-polymer- based products that reduce further impact on climate Customer behaviors from advanced economies demand lower carbon products Rising degree of uncertainty in raw material prices | A D | Slow customer behavior changes in some advanced economies High degree of uncertainty in energy market signals | |
| • | Reputation Risk | r A | Chemical sector or certain petrochemical materials (i.e., plastics) stigmatized Rising expectations for rapid innovation and displacement of older, heavily carbon- intensive designs and manufacturing processes | 47 | NDC countries expected to innovate and seek rapid minimization of customers' scope 3 emissions | (Z) | Increased concern from stakeholders for not addressing climate change globally or for the chemicals sector | |
| • | Acute & Chronic Risk L | AN 3 | Possible direct damage to fixed assets and logistics disruptions in both our value chain and operations | Â | More frequent and intense weather events and changing precipitation patterns are likely to damage manufaturing faciliites, disrupt logistics and sourcing activities, and negatively affect employee health and communities where we operate | Â | More frequent and intense weather events and changing precipitation patterns are likely to affect the performance of grids and thermal plants while pushing up demand for cooling, damage fixed assets, disrupt logistics and sourcing activities, and negatively affect employee health and communities where we operate | |
| | | | BUSINESS IMPLICATIONS AND STRATEGIC RESPONSES | | | | | |
| | IMPACT DRIVER & TIME HORIZON | | NET ZERO FUTURE | | PLEDGING PROGRESS | | STEADFAST POLICY | |
| • | Resource Efficiency Opportunity S M L | A | More efficient production and distribution processes, reduced natural resource usage, continued use of recycling, and inclusion of recycled materials in our products such as reSound [™] R, ColorMatrix [™] Capture [™] Oxygen Scavenger, among others will contribute to increasing product revenues and reduced operating costs | ~l^ | Resource efficiency efforts supported by capital allocation in NDC countries is more likely and may accelerate a path toward maximizing ROI and reducing operating costs | | Less regulatory and pressure to incentivize may cause gains from efforts to lag | |
| • | Energy Source Opportunity M L | r A | Use of greater external financing options, such as operating lease arrangements or energy performance shared savings contracts, to source lower emission-energy and new technologies, such as carbon capture, utilization & storage (CCUS), in our operations may reduce operating costs and maximize returns on investment | 47 | Use of lower emission-sources of energy in operations will lower operating costs and contribute toward reductions of our scope 1 and 2 emissions and product carbon intensities | A) | Use of renewable energy, increased efficiency, and electrification initiatives will lower operating costs and contribute toward reductions of our scope 1 and 2 emissions and product carbon intensities. | |
| • | Products & Services and Markets Opportunities S M L | r A | Avient's role in producing innovative and low-emissions materials through light- weighting, creation of sustainable infrastructure, and advanced recycling technologies is instrumental in the global transition. We are positioned to capture enhanced market share over expanding and emerging needs that will also enable climate | M | High revenue growth opportunities to meet demand for highly efficient chemical materials that will contribute to lowering customers' emissions as part of our Sustainable Solutions label | AN . | High to moderate revenue growth opportunities for new chemical materials pertinent to Avient's customers' strategies (low-carbon and otherwise) and are in compliance with any existing regulations (i.e., VOC reducing materials that address vehicle air quality standards) | |



Time horizon Legend

Low impact S - short-term 0-5 years Moderate impact M - medium-term 5-15 years High impact

L - long-term 15-30 years

| ADAPTATION & STRATEGIC CONSIDERATIONS | | | | | | | |
|---------------------------------------|--|--|--|--|--|--|--|
| - | IMPACT DRIVER & | | | | | | |
| • | Policy & Legal Risk | Avient's Environmental and Product Stewardship Polices set a foundation for greater operational and external policy expectations aligned with energy efficiency standards, renewable energy procurement, supplier engagement (i.e., Media & Stakeholder Analyses {MSA} climate criteria) The current and future focus is on continued Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) assessments, reclassifications and communication on the safe use and handling of these substances. Many other countries are following suit on the EU REACH chemicals regulation or a similar framework. In 2021, we successfully completed the pre-registration for UK REACH post Brexit. Net zero (1.5C) aligned policies related to procurement decisions, supplier and regulatory engagement, decarbonzation pathways, product pipeline have not fully been established, but is something we are considering Further enhancement of policies to support the due diligence efforts of M&A opportunities that include climate-related criteria may benefit our decision-making In 2022, Avient instituted our first internal cost of carbon to better prioritize low-carbon investments | | | | | |
| • | Technology Risk S M | • We are constructing a detailed decarbonization pathway aligned to our existing 2030 goal. Clean electrification of our operations and processes will represent some of our current scope 1 emissions reductions, though further evaluation is required. • Avient became a member of the RE100 initiative in 2021, committing to achieving 60% renewable energy use by 2030. To help reduce consumption from non-renewable energy sources and facilitate the expansion of renewable energy availability, Avient continues to leverage Virtual Power Purchase Agreements (VPPA). For example, in 2021, we entered into a VPPA in Europe that will produce 37.5 MW of solar energy with benefits beginning in 2023. | | | | | |
| • | Market Risk S M | We have appointed a designated supply chain sustainability professional to lead proactive and targeted sustainability focused engagement efforts with suppliers to understand and mitigate market and value chain risk exposure. We are developing a Supplier Sustainability Program designed to address quality, cost and reliability requirements, and a range of sustainability, social responsibility and environmental considerations. We collaborate across the value chain from suppliers to converters and brand owners to enable our customers to meet their sustainability goals. We enable reduced carbon footprint technologies, improved recyclability, increased recycle content, and bio-derived solutions. We partner with EcoVadis to evalute our prioritized suppliers on environmental, social and governance requirements, alligned with the UN Global Compact principles. By 2030, to ensure alignment with Avient's expectations on environmental, social and governance requirements, Avient will assess its top suppliers representing 90% of our total raw material costs. Avient's sustainability collutions seek to solve our customer's complex sustainability challenges by reducing demand for raw materials and enabling the use of more recycled content, formulating with bio-polymers, and lightweighting materials. | | | | | |
| • | Reputation Risk | Centralization of efforts will be beneficial in order to achieve ambitious net-zero aligned strategic milestones. Talent development and retention in expertise areas of emerging technologies that can be deployed within our operations and support clean electrification and evaluation of resilient, diverse, and alternative energy generation models is ongoing. We are a founding member of the Alliance to End Plastic Waste (AEPW). AEPW's mission is to develop, accelerate, and deploy solutions, catalyze public and private investment, and engage communities to help end plastic waste in the environment. Our investments are focusing on infrastructure, innovation, education and clean-up initiatives. We have organized our portfolio to enable our customers to solve complex sustainability changes, from enabling the use of more recycled content, formulating with biopolymers, sustainable infrastructure, human health & safety, lightweighting, reducing volatile organic compounds, reducing energy usage and offering eco-conscious solutions. | | | | | |
| • | Acute & Chronic Risk | Physical climate-related risk assessments over our critical manufacturing sites, suppliers, and logistics route will be helpful in making corporate real estate and procurement choices. Our diverse geographic footprint and identification of critical site redundancies moderately mitigates site-specific business interruption risk. | | | | | |
| _ | | ADAPTATION & STRATEGIC CONSIDERATIONS | | | | | |
| | TIME HORIZON | | | | | | |
| • | Resource Efficiency Opportunity S M L | We have embedded an energy intensity KPI (covering process and building efficiencies) into the incentive structure for all employees. By 2030, Avient will enable 100% of our products manufactured for packaging applications to be recyclable or reusable to advance the circular economy, for which approximately 90% of Avient's products met this criteria in 2020. In support of advancing the circular economy, our design expertise and material science, helps our customers reduce material usage, enable recyclability, increase recycle content, and improve physical performance. Avient joined the Alliance to End Plastic Waste as a founding member and is collaborating with over 65 member companies to promote infrastructure, education and engagement, innovation, and clean up effrots to keep plastic waste in the right place. By 2030, Avient will reduce Scope 1 & 2 GHG emissions by 60% with 2019 as a baseline and achieve operational carbon neutrality by 2050. By 2030, Avient will reduce waste to landfill by 35% from the 2019 baseline. In 2021, we were able to further optimize the resource and energy consumption of our production through initiating 102 energy saving projects around the world. | | | | | |
| • | Energy Source Opportunity M L | Our decarbonization pathway is focused on reducing scope 2 emissions reductions for which a VPPA in Europe is planned to commence generation in 2023. Additional renewable energy will still be needed in Europe to offset the related grid emissions as will we also need to identify similar outlets in the Americas and Asia Pacific. By 2030, Avient will obtain directly or contract for 60% of its electricity demand from renewable sources and achieve 100% renewable energy by 2050. | | | | | |
| • | Products & Services and Markets Opportunities S M L | We have established a product carbon footprint team that focuses on providing product-specific carbon footprint metrics based on where and how the product is manufactured. Our position in enabling the use of recycled materials, bio-renewable solutions, renewable energy, or energy reductions requires manufacturing in a manner and light weighting of transportation vehicles so that they contribute to more efficient value chains and accelerated lower-carbon transitions for our customers. In 2021, we delivered \$915 million in sustainable solutions sales, as defined using critieria aligned with the FTC 2012 Guide for the Use of Environmental Marketing Claims. We are evaluating our Asia Pacific go-to-market strategy, especially in China. While we have a very small footprint in other rest of world countries, such as Singapore, Thailand, Vientam, Malaysia, it is difficult to receive the resources needed to make substantial decarbonization action in these countries. Well-documented and integration of oversight of the development and performance of climate-related solutions will help to ensure product-level carbon intensity reductions. | | | | | |