



## Annex 11.1: TCFD Risk Assessment

TCFD RECOMMENDATION	Arçelik's TCFD Risk Assessment Response
Governance	<p>The Board of Directors (BoD) is the highest governing body for the management of ESG related risks and opportunities. Koç Holding Consumer Durables President has been appointed by the BoD as the responsible board member to inform the BoD on ESG related risks and opportunities. In 2021, three reports were prepared to the attention of the BoD. The investments made or to be made concerning the decarbonization strategy, the risks concerning the potential application of the Carbon Border Adjustment Mechanism, the rise in carbon prices in both the voluntary and the regulated markets, the risks associated with the decarbonization strategy on the way to Net Zero are reported besides the investment need for other environmental/social issues and the restructuring in terms of human rights and diversity, inclusion issues.</p> <p>The Sustainability Council, chaired by the CFO, governs the climate -related and other ESG risks and opportunities. The executive members of the Sustainability Council include the Chief Executive Officer, Chief Production and Technology Officer, Chief Strategy Officer, Chief People Officer, Quality, Sustainability and Corporate Affairs Director, Enterprise Risk Director, R&amp;D Director, Purchasing Director, and Legal and Compliance Director. The Sustainability Council has close collaboration with other committees of the Group such as the Corporate Governance Committee, Risk Committee, Global Ethics Committee, Audit Committee and the Human Rights Committee. By meeting quarterly, the Sustainability Council monitors the sustainability projects and determines the sustainability strategy of the Group on a going-forward basis. Under Sustainability Council, there are working groups; Energy Working Group (WG), Green Chemistry WG, Environment WG, OHS WG, Sustainable Supply Chain WG to determine the issues to be discussed in the Sustainability Council meetings. In 2021, one of the most significant decisions was the approval of Arçelik's net-zero 2050 commitment. The investment need related to the carbon neutrality roadmap, the science-based targets (SBTs) and measures taken in terms of the EU Green Deal Circular Economy Action Plan remained among some of the critical issues discussed during the Sustainability Council meetings. Management's role is critical in taking concrete action to assess climate related risks and opportunities. The Science Based Targets of Arçelik are included in the scorecards of the CEO, CFO, CPTO, Product Management Director as well as the Quality, Sustainability and the Corporate Affairs Director, Purchasing Director and Product Sourcing Director.</p>



# Annex 11.1: TCFD Risk Assessment

## TCFD RECOMMENDATION

## Arçelik's TCFD Risk Assessment Response

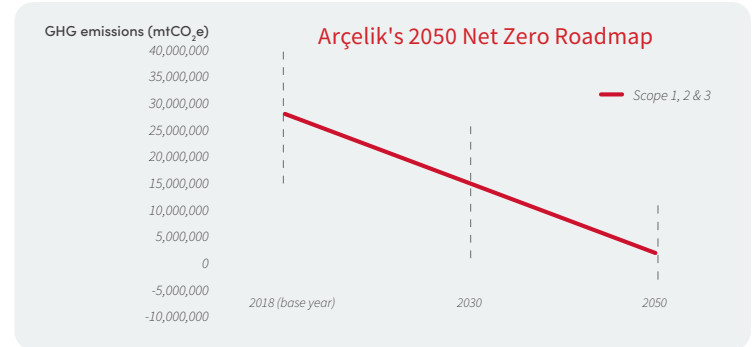
As a company operating in a vast geography, Arçelik is exposed to different climate change and ESG-related risk factors in the short, medium and long term. Since the effects of climate change and other ESG risks on our operations cannot be observed immediately, time intervals are defined as differently.

Short-term	Medium-term	Long-term
1-3 years	3-10 years	+10 years

The climate related risks and opportunities are broken down to transition risks and physical risks based on the TCFD requirements. The transition risks are further broken down into; policy, market, reputation and technology risks.

### Methodologies applied

The potential impacts of the transition to a low-carbon economy on Arçelik operations were analyzed in terms of the policy, market, reputation, and technology risks. For policy risk and the related price of carbon, the S&P Trucost ESG methodology has been outsourced. The S&P Trucost ESG Methodology includes a Corporate Carbon Pricing Tool that analyzes carbon price risk premiums on High, Medium, Low carbon price scenarios based on the responsiveness level of each scenario to limit global warming to 2 degrees Celsius. The scenarios have been based on 2030 and 2050 projections.



Strategy

### The Low Climate Scenario (RCP 2.6)

Companies are more likely to focus on energy-efficient products & services to reach net-zero targets.

Since the net-zero transformation will be successful, it is possible to focus on Scope 3 emissions causing from purchased goods and services, employee commuting and product logistics besides use phase of sold products.

Voluntary carbon markets will be one of the most critical topics to discuss since companies will be able to remove their residual emissions to reach net-zero targets.

To implement global net-zero strategies, international/regional organizations are more likely to define new taxes on highly-emitting industries and their suppliers.

New standards and frameworks will be published for companies to guide them on net-negative emission targets as one step further.

### The Moderate Climate Scenario (RCP 4.5)

Companies need to focus on serious climate related impacts and monetary burdens because of imbalanced climate conditions.

Since the net-zero transformation delayed, public and private authorities will focus on how to mitigate the impact of extreme weather events causing huge costs of each country and business lines.

Companies are more likely to focus on physical impacts of climate events e.g. serious disruption in their supply chains, serious energy and water problems in developing countries etc.

Voluntary carbon markets will be still significant for companies to remove part of their GHG emissions but supply/demand curve will be imbalanced.

There will be financially burdening taxes on highly-emitting industries to decrease the impact of extreme weather events and to transform companies.



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Strategy	<p>In the high carbon price scenario for 2030, Scope 3 emissions is the largest contributor to Arçelik's carbon pricing risk. The market, reputation, and technology risk analysis are based on the internal expertise of Arçelik, using IEA STEPS, Sustainable Development Scenario (SDS), and International Energy Agency (IEA) Net- Zero 2050 Scenarios.</p> <p>For physical risk, the S&amp;P Trucost ESG methodology, WRI Aquaduct and Arçelik internal expertise have been used.</p> <p>Various parameters were developed for alternative scenarios to observe the possible effects of the physical and transition risks of climate change. By using alternative scenarios, Arçelik develops resilient strategic business plans and reduces the vulnerability of its operations.</p> <p>Related to climate change, Arçelik considers potential material impacts such as destructive natural events caused by rising temperatures, additional costs such as taxes on carbon and GHG emissions, and regulatory changes like EU's Carbon Border Adjustment Mechanism and shifting customer demand to more energy-efficient products. Arçelik evaluates the impact of all these potential risks on its operations in terms of both financial and non-financial results. These risks have decisive impacts on supply chain, product development, R&amp;D, innovation, purchasing, production and sales, as well as on premises such as manufacturing plants and warehouses. Therefore, in critical decision-making processes such as setting strategic goals, allocating financial resources or making a new investment decision, the risks and possible impacts of climate change have been directly integrated into the process.</p> <p>While deciding on robust strategies over climate related risks &amp; opportunities, Arçelik considers the IPCC's low and moderate scenarios, which are mainly depending on the global warming levels by 2100, together to decide on the company's short, medium and long term targets. According to the possible scenarios indicated by the IPCC, the Moderate Climate Scenario (RCP 4.5) indicates that GHG emissions are likely to decline by 2045 and reach half of the levels of 2050 by 2100. The Low Climate Scenario (RCP 2.6) foresees that GHG emissions are likely to decline starting from 2020 and it is possible to reach below 2 degrees celsius level by 2100.</p>



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TCFD RECOMMENDATION	Arçelik's TCFD Risk Assessment Response
Strategy	<p><b>Physical Risks</b>  <b>Risk Type:</b> Continuity of Operations  <b>Term:</b> Medium-Long Term  <b>Financial Impact:</b> Low  <b>Likelihood:</b> High</p> <p><b>Risk</b>  For Arçelik's physical risk, the S&amp;P Trucost ESG methodology, WRI Aqueduct and Arçelik internal expertise have developed a methodology. The combined methodology leverages physical risks of Arçelik at the asset level, as well as its suppliers, taking into consideration climate hazard indicators such as water stress, flood, heatwaves, cold waves, hurricane, sea level rise, etc. and their impact on Arçelik's operations. The High Climate Scenario (RCP 8.5), the Moderate Climate Scenario (RCP 4.5) and the Low Climate Scenario (RCP 2.6) were taken into consideration with a forecast for the 2030 and 2050 fiscal years from a 2020 baseline. According to the Trucost Physical Risk assessment, Arçelik's overall physical risk score is moderate, main risk item being water stress. India, Romania, Turkey (Ankara and Çayirova) sites are prone to high water stress risk. Based on Trucost analysis, Arçelik's suppliers' main physical risks are related to water stress as well. Therefore, Arçelik has to consider water stress risks in water stress countries of Arçelik and the company's suppliers operations and potential disruption in supply chains of critical materials in countries prone to high heatwave/coldwave/flood risks. Due to these risks, Arçelik might potentially incur reduced revenue and market loss from decreased production capacity, logistics problems, and supply chain interruptions. There might also be a potential CAPEX need in case of damage to production facilities or at a supplier/customer site.</p> <p><b>Opportunity</b>  Arçelik's production facilities are based in more than one location in order to manage business interruption risks better. While deciding on a new acquisition, land resilience is factored into the due diligence process. The company takes necessary precautions to diversify Arçelik's supply chain. Arçelik is also cooperating with suppliers to collect GHG emissions, water, waste and energy data from suppliers. Arçelik informs suppliers about the mitigation costs to be incurred today vs the adaptation risks to be incurred in the future if the planet cannot be on track with a 1,5 degree warming scenario. As a physical risk mitigation measure, Arçelik has set targets based on Trucost Approach risk assessment result to increase water recycling and reuse ratio to 70% in all production plants by 2030 aiming to achieve closed loop water system in production. The Insurance Management Team under the Finance &amp; Enterprise Risk Directorate calculates financial and non-financial risks related with the extreme weather events where Arçelik production facilities are located in correlation with all related bodies within the company. The company has several lines of insurance policies globally including Third Party and Pollution policies, all risk Property Damage and Business Interruption policies for the physical and non-physical risks in place to mitigate the adverse consequences as much as possible. Finally, based on modeling studies, in case of any events that are related with business interruption due to physical risks, compensation methodologies are already defined accordingly.</p> <p><i>* Water recycling and reuse ratio = (Total recycled + reused water)/Total water withdrawal</i>  <i>* Arçelik became a CEO Water Mandate signatory at the beginning of 2022 and commits to make continuous improvements based on the six commitment areas set forth by the CEO Water Mandate, which are: 1) Direct Operations 2) Supply Chain &amp; Watershed Management 3) Collective Action 4) Public Policy 5) Community Engagement 6) Transparency</i></p>



## Annex 11.1: TCFD Risk Assessment

TCFD RECOMMENDATION	Arçelik's TCFD Risk Assessment Response
Strategy (continued)	<p><b>Transition Risks</b>  <b>Risk Type:</b> Policy Risk  <b>Term:</b> Short-Medium &amp; Medium-Long Term  <b>Financial Impact:</b> High  <b>Likelihood:</b> High</p> <p><b>Risk</b>  Reducing adverse and irreversible impacts of global warming is in the main agenda of international and regional organizations, there are increasing trend to set rules and standards for companies operating in different sectors. Arçelik's possible risks are shaped around the new regulations especially set by the EU from the perspective of the EU Green Deal and the potential ETS mechanisms to be applied in Arçelik's production countries. According to Arçelik's analysis, potential climate related transition risks of Arçelik are defined as: the rise in green electricity prices and availability of green electricity in countries where Arçelik operates, potential implications of the EU Carbon Border Adjustment Mechanism on the company's operations, EU Green Deal implications on Arçelik operations regarding cost increases in Arçelik's key production inputs such as steel and glass, potential impact on the company's exports from the non-EU countries to the EU (almost half of Arçelik's revenue), cost up per product to innovate more energy efficient appliances to meet the mid-term 2030 Science Based Targets, possible introduction of an ETS mechanism in countries in which Arçelik has production facilities and the corresponding additional carbon costs for short-medium term. In addition to those risks, rise in voluntary carbon prices especially the carbon removal credit prices following the COP26, costs associated with reducing logistics emissions in the value chain and costs associated with helping suppliers transform to a low carbon economy and reduce raw material emissions for Arçelik production are defined as the medium-long term risks of the company.</p> <p><b>Opportunity</b>  Arçelik's mid-term 2030 approved Science-based Targets for a well below 2 degree scenario was applied for a revision to the SBTi to have new targets in line with 1.5 degree Celsius scenario. Arçelik committed to the SBTi Net Zero 2050 Standard to set science based 2050 net zero target. In line with the Science Based Targets Net Zero 2050 Standard, Arçelik intends to invest in permanent carbon removal solutions to offset the company's residual emissions (blue carbon or a combination both technology based solutions &amp; blue carbon projects). The company committed to double energy productivity per revenue by 2030 based on the EP100 membership. Arçelik has a target to ensure 100% green electricity purchase in all production facilities by 2030 which is equal to 64% of the global operations for now. Arçelik aims to ensure 50MW* renewable energy investment in 2030 which is 3,6 MW for now. Arçelik started to apply internal carbon price mechanism which is applied on investment higher than €50,000 and 50 kW capacity that is equal to €50 per ton. The company's €350 million green bond proceed's will be used solely for energy efficient products, energy efficiency in production, increasing circularity and avoiding hazardous chemicals.</p> <p><i>*Our previous target was to reach 15 MW in terms of installed renewable energy capacity. According to our new challenging roadmap, we revise our 2030 target as 50 MW.</i></p>



## Annex 11.1: TCFD Risk Assessment

TCFD RECOMMENDATION	Arçelik's TCFD Risk Assessment Response
Strategy (continued)	<p><b>Transition Risks</b></p> <p><b>Risk Type:</b> Market and Technology Risk  <b>Term:</b> Medium-Long Term  <b>Financial Impact:</b> High  <b>Likelihood:</b> High</p> <p><b>Risk</b></p> <p>According to the IEA STEPS, SDS and net-zero targets of the companies, it is evident that there will be a shift in demand to more energy-efficient appliances as efforts to keep the global warming in 1.5 degrees Celsius levels. Especially considering that more than 2,000 publicly owned companies have declared their net-zero targets beyond 2050, energy-efficiency is going to be one of the most critical topics in the near future. It is significant to note: 40% of energy consumption is related to household appliances in homes, product use phase constitutes nearly 80% of Scope 3 emissions in Arçelik's value chain. Arçelik has plans to grow in the APAC region, where electricity demand is expected to soar as the middle-class population and purchasing power increases and demands for major domestic appliances such as refrigerators, washing machines and air-conditioners increases. Considering the low dishwasher/washing machine penetration rates in countries like Pakistan, India and Bangladesh where Arçelik has production facilities, expectation for new minimum energy labeling requirements in different countries and regulations such as the EU Energy Labeling Requirements and increasing investment needed to use Best Available Technology to stay ahead of regulation and put on the market the best energy class products, Arçelik has to make a strong pathway for market and technology risks and put up with the costs associated to produce energy efficient innovative appliances. In line with Arçelik's SBTs, the company aims to follow a strategy to provide the best energy efficiency class ahead of legislation in the developing countries where Arçelik operates such as South Africa, Pakistan, India and Bangladesh. For this reason, the company might face with increase in operational costs and increased investment need. Since Arçelik has a significant growth potential in Southeast Asia and other emerging markets, investment in PU installation technologies with significantly smaller GWP; investments in heat pump technologies and transition from HFCs will play a crucial part for producing energy-efficient products that exceed regulations in the market. Arçelik Scope 3 emissions make up 99% of the entire emissions generated. The impact of Scope 1 and 2 emissions is very limited. 80% of the Scope 3 emissions generated in Arçelik result from the use phase of the products, interlinked to the energy efficiency levels of the products.</p> <p><b>Opportunity</b></p> <p>Based on the company's previous experience in producing energy-efficient products ahead of the legislation, as in the example of DEFY, in South Africa, Arçelik is well positioned to take advantage of the demand for energy-efficient appliances to meet up with the Paris Agreement. In 2011, after the acquisition of DEFY in South Africa, Arçelik invested heavily in innovation and product energy efficiency. As a result, the average energy efficiency class of Arçelik's refrigerator sales in South Africa increased from "E" to "A" in 5 years; that means a more than 50% decrease in energy consumption. Now, the company has upgraded Arçelik's refrigerator product range to A+. The minimum energy efficiency standard in South Africa is B (and C for freezers). The gap between what the company offers at minimum and the legal limit speaks of more than a 40% energy saving. Arçelik is the market leader by far in South Africa, and adapting quickly for the upcoming stricter minimum energy performance specifications. Arçelik acquired the leading white goods company Daqlance in Pakistan three years ago, where 70% of the population either have no access to power grid or suffer daily power cuts. Currently, in Pakistan, there is no regulatory mandate for energy efficiency standards and labeling of home appliances. Many fridges are still made containing fluorinated refrigerant gases (HFCs.) The company started introducing high-quality, energy-efficient and affordable products that meet the highest environmental standards. Arçelik considers the low penetration rates and the lack of regulations in certain markets as an opportunity to educate customers on the importance of energy efficient appliances. Arçelik is aware of the opportunity that it can lead such markets with energy efficient products.</p>



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TCFD RECOMMENDATION	Arçelik's TCFD Risk Assessment Response
Strategy (continued)	<p><b>Transition Risks</b>  <b>Risk Type:</b> Reputation and Market Risk, Failure to Transition to a Low Carbon Economy  <b>Term:</b> Short-term  <b>Financial Impact:</b> Low  <b>Likelihood:</b> Low</p> <p><b>Risk</b>  As of today, there is an increasing demand from investors and international/national sustainability indices for companies to commit international credible initiatives like the Science-based Targets Initiative and international frameworks like the TCFD implementations. Since most of the investors are adding ESG performance part to their investment criteria, Arçelik has to consider the most recent ESG risk and opportunities in the company's agenda and need to make concrete actions to make the company preferable for the most credible international indices and frameworks. The company is publicly traded with more than 30% of the shares held by international investors. Therefore, any failure from Arçelik's end to meet the company's ambitious targets for SBTi or placing in significant sustainability indices cause critical reputational damage.</p> <p><b>Opportunity</b>  Arçelik is one of the pioneers among the company's industry and also among other sectors globally in terms of putting sustainability at the center of Arçelik's way of doing business. With the "Respecting the World, Respected Worldwide" perception, Arçelik has board-level support to transform not only the company but also Arçelik's value chain. Arçelik's pathway for 2050 net-zero target clearly shows the company's great effort upon investor demands and the requirements defined by the indices and frameworks. Arçelik has approved Science Based Targets and committed to the Science Based Targets Net Zero Standard to set a science based net zero target. Arçelik also joined to the Business Ambition for 1.5 degree Celsius and the Race to Zero in 2021. Besides that, Arçelik received the highest score from the Dow Jones Sustainability Index for three (2019, 2020, 2021) consecutive years in the company's industry. The company also place in the Corporate Knights Top 100 Most Sustainable Companies list as 57<sup>th</sup> for second consecutive year. Arçelik is the 19<sup>th</sup> company on The Real Leaders Top 200 Impact Companies of 2021. The company has low risk ranking from ESG perspective by 12.1 by Sustainalytics. Arçelik actively reports to the CDP Climate Change and Water Security programs and has A-/A score for both of the reports. Finally, Arçelik is one of the 45 global companies awarded the Terra Carta Seal and the first and only company from the company's industry and Turkey.</p>



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<p><b>Risk Management</b></p>	<p>The Finance and Enterprise Risk Management Directorate and the dedicated Sustainability Team work cooperatively to evaluate, measure and prioritize the climate-related risks and opportunities. Their main aim is designed to turn nonfinancial risk items into financial metrics. Various reports are prepared by taking physical and transition risks stemming from the climate change into account. Low carbon related risks and opportunities are carefully evaluated both at the Sustainability and Risk Councils. Arçelik considers each of the company's employees as a stakeholder in the risk management process. Therefore, activities of the risk management also include raising employee awareness about risks and motivating them to ponder and report potential risks through the risk proposal system. As a result of the joint effort of Sustainability Working Groups and Enterprise Risk and Insurance Management Team; risks and opportunities in climate change and ESG issues are identified.</p> <p>The Enterprise Risk and Insurance Management is responsible to follow best practises such as the ISO 31000 Risk Management Standard and the COSO Enterprise Risk Management Integrated Framework. Arçelik also has a risk proposal system to inform the Enterprise Risk and Insurance Management team about an emerging risk. When a significant risk proposed to the Enterprise Risk and Insurance Management Team, they carefully examine the risk through proposal system, include those deemed appropriate in the company's risk inventory and monitors the risks within the relevant risk management process. There are various categories such as operational, strategic, compliance with legal obligations and external factors, into account while evaluating non-financial impacts. Arçelik uses existing Enterprise Risk Management Framework for managing climate change and other ESG-related risks. Along with the risk owner, impact and probability ranges are defined based on this framework. Additionally, relevant business units that may take mitigation actions are included in the process. Risks are identified and prioritized based on impact metrics, risk scores and assessments.</p> <p>The critical topics which will be included in the Sustainability Council is defined based on the risks which are reported to the Enterprise Risk and Insurance Management and the Risk Management Committee. Considering ESG risks, Enterprise Risk and Insurance Management raises awareness for climate change, encourages occupational health and safety practices and instills Arçelik's corporate culture. The Finance and Enterprise Risk Management Directorate under the Assistant General Manager of Finance and Accounting ensures the management, coordination and surveillance of risks that may affect the company by means of the risk management system it established and reports to the Risk Management Committee. The Risk Management Committee reports to the Board of Directors, identifying risks early and taking necessary actions to mitigate and manage those risks. Enterprise Risk and Insurance Management is combined with all business processes and operations in production facilities, headquarter units and international subsidiaries, and impacts the risk owners' performance evaluation process.</p> <p>Risk Management Committee is responsible early detection and evaluation of all kinds of financial, strategic, operational, compliance and external risks that may affect Arçelik, calculating their effects and possibilities, managing these risks in accordance with the Company's corporate risk appetite, regularly reporting the risks and taking them into account in decision mechanisms, and establishing effective internal control systems in this direction.</p>
<p><b>Metrics &amp; Targets</b></p>	<p><a href="#"><u>For Arçelik's 2050 Net-zero Roadmap please visit.</u></a></p> <p><a href="#"><u>For Arçelik's Materiality Analysis please visit.</u></a></p> <p><a href="#"><u>For Arçelik's ESG targets please visit.</u></a></p> <p><a href="#"><u>For Arçelik's In Touch with Planet section please visit.</u></a></p> <p><a href="#"><u>For Arçelik's In Touch with Human Needs section please visit.</u></a></p> <p><a href="#"><u>For Arçelik's in Touch with Business section please visit.</u></a></p> <p><a href="#"><u>For Arçelik's S&amp;P ESG Evaluation Report please visit.</u></a></p> <p><a href="#"><u>For Arçelik's corporate management structure please visit Annex 12.</u></a></p> <p><a href="#"><u>For Arçelik's Achievements &amp; Awards in 2021 please visit.</u></a></p> <p><a href="#"><u>For Arçelik's Environmental Performance Indicators please visit Annex 4.</u></a></p> <p><a href="#"><u>For Arçelik's Social Performance Indicators please visit Annex 6.1.</u></a></p> <p><a href="#"><u>For Arçelik's Other ESG Related Risks &amp; Opportunities please visit Annex 11.4.</u></a></p>





## Annex 11.2: TCFD Index

Metric	Disclosure	Section/URL	Explanation
Governance	The Boards of Directors' oversight of climate-related risks and opportunities	<a href="#">Arçelik 2021 CDP Climate Change Report</a>	C1.1a, C1.1b, C1.2a, C1.3a
	Management's role in assessing and managing risks and opportunities	<a href="#">Arçelik 2021 Sustainability Report</a> <a href="#">Arçelik 2021 Annual Report</a>	Please see pages 39, 40 Please see pages 135-136
Strategy	Climate-related risks and opportunities the organization has identified over the short, medium, and long term		C2.1, C2.1a, C2.1b, C2.2, C2.2a, C2.3, C2.3a, C2.4, C2.4a, C3.1, C3.1a, C3.2, C3.2a, C3.3, C3.4
	The impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	<a href="#">Arçelik 2021 CDP Climate Change Report</a> <a href="#">Arçelik 2021 Sustainability Report</a>	Please see pages 6
	The resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a +2°C scenario or lower		
Risk Management	The organisation's processes for identifying and assessing climate-related risks		C2.1, C2.1a, C2.1b, C2.2, C2.2a, C2.3, C2.3a, C2.4, C2.4a, C3.1, C3.1a, C3.2, C3.2a, C3.3, C3.4
	The organisation's processes for managing climate-related risks How processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management	<a href="#">Arçelik 2021 CDP Climate Change Report</a> <a href="#">Arçelik 2021 Sustainability Report</a> <a href="#">Arçelik 2021 Annual Report</a>	Please see page 187 Please see pages 130, 131, 132, 140, 141, 142, 143, 144, 145, 146, 147
Metrics and Targets	The metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process		C2.1, C2.1a, C2.1b, C2.2, C2.2a, C2.3, C2.3a, C2.4, C2.4a, C3.4a, C4, C4.1a, C4.1b, C4.2, C4.2a, C4.2b C6.1, C6.2, C6.3, C6.4, C6.5
	Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	<a href="#">Arçelik 2021 CDP Climate Change Report</a> <a href="#">Arçelik 2021 Sustainability Report</a> <a href="#">Arçelik 2021 Annual Report</a>	Please see Annex 1, 2, 4 and pages 3, 6, 44, 45, 187
	The targets used by the organization to manage climate-related risks and opportunities and performance against targets		Please see pages 141, 142, 143, 144, 145, 146, 147



## Annex 11.3: Board Table

ESG Integration into the Board of Directors (BoD)	Arçelik's Strategy	Reference
ESG-related risks or issues in the board charter	<p>With the motto of ""Respecting the World, Respected Worldwide"" ESG related risk and opportunities are the main focus points for the long-term strategy of Arçelik. Since the company has declared the commitment to become a net zero company in all Arçelik's value chain by 2050, BoD accelerates the process for new policy and action integration over the ambitious long-term target in Arçelik. For this reason, there are various organizational structures which are designed to ensure the best integration strategy to handle ESG related risks and turning those into various opportunities.</p> <p>In order to strength that the top management interest over the ESG topics, significant long-term targets and strategies i.e. Science-based Targets initiative are provided in the key performance indicator cards of the related department directors and management such as CEO, CFO, CPTO, Product Management Director as well as the Quality, Sustainability and the Corporate Affairs Director, Purchasing Director and Product Sourcing Director are added into the Arçelik's strategy agenda. To support those key performance indicators and ESG related risk and opportunity improvement, there is the Sustainability Council, Sustainability Working Groups and related committees i.e. Enterprise Risk Management Directorate, Risk Management Committee to manage the current and upcoming risks and opportunities.</p>	Arçelik 2021 Sustainability Report, pages 39, 196, Corporate Governance Structure Chart
Board committee that focuses on ESG-related risks and issues	<p>Arçelik's Sustainability Council sets corporate sustainability and climate change policies and strategies, ensures those are integrated with internal business process and tracks sustainability performance. The Council is held in each quarter during a year and gathers related people together to define most significant ESG-related risks and opportunities. To ensure the most effective sustainability governance over the company, the related committees are responsible to report the Sustainability Council. In this direction, Global Ethics Committee, Risk Management Committee, Human Rights Committee and Sustainability Working Groups are the reporters for the Sustainability Council of Arçelik.</p> <p>Sustainability Working Groups (WGs) are designed to accelerate the assessment of risk and opportunities related with the ESG metrics. In this regard, there are six different WGs which focus on different perspectives over the company's ESG strategy. The WGs are named as: Energy WG, Green Chemistry WG, Environment WG, OHS WG, Sustainable Supply Chain WG and Human Rights WG. Those WGs are responsible to ensure regular reports to the Sustainability Council in each quarter regarding their updated works and strategies related with Arçelik's ESG management.</p>	Arçelik 2021 Annual Report, 135-136
Directors with ESG-related knowledge or expertise to the board or relevant committee	<p>In Arçelik, ESG related risks and opportunities are held at director and top management levels. The Sustainability Council is chaired by the company's CFO. Consisting of Arçelik Senior Management, the council members supervise and coordinate the sustainability activities in their areas of responsibility and chair the Sustainability Working Groups. Moreover, in order to ensure sustainability strategy is embedded in the Arçelik's strategies at the highest level, Koç Holding Consumer Durables' President, one of the members of the BoD, and the Director of Quality, Sustainability and Corporate Affairs, report quarterly to the BoD on the activities implemented within the company in line with the ultimate sustainability strategy and the targets set. The overall responsibility of the Group's management of sustainability related topics rests with the BoD.</p>	Arçelik 2021 Annual Report, 135-136
Topics included in the BoD agenda	<p>The critical topics which will be included in the Sustainability Council is defined based on the risks which are reported to the Enterprise Risk Management and the Risk Committee. In parallel with that, physical risks are one of the main focus points of the Sustainability Council. For instance, the Council monitors and evaluates water risks, strategies and impact on business objectives quarterly. Risks and opportunities are prioritized by the Sustainability Council according to the scoring methodology of Arçelik. According to Arçelik's risk and opportunity scoring methodology, risks and opportunities are scored based on financial, reputational, production, human and legal impacts, and the highest score is defined as the point of impact. Other risks are defined with the mutual works of Sustainability WGs and related Committees.</p>	Arçelik 2021 Annual Report, 135-136 Arçelik 2021 CDP Climate Change Report, C1.1a, C1.1b, C1.2a, C1.3a Arçelik 2021 TCFD Report, Annex 11.1



## Annex 11.4: Other ESG-Related Risks & Opportunities

### OTHER ESG RISKS AND OPPORTUNITIES

#### RISK TYPE: SUPPLY CHAIN DISRUPTION RISK

**Term:** Short-Medium Term

**Financial Impact:** Medium

**Likelihood:** High

#### Risk

Based on the World Economic Forum 2022 Global Risks Report, climate action failure, extreme weather, infectious diseases are among the most severe risks on a global scale over the next 10 years. While the humanity is facing the risk of new diseases along with COVID, scientists warn that the impacts of global warming, if not mitigated, will highly likely be even more disruptive than that of COVID in terms of the social and economic impact. Given the current economic and political turmoil globally, there are also other possibilities such as community conflicts, social crises, physical risks or military causes. The impacts of COVID has deeply affected and caused supply chain disruption on a high scale. The same risk is highly likely to prevail in the long run due to increasing raw material prices, inflation, social and political risks coupled with the highly likely increase in extreme weather events. All these risks are likely to cause supply chain disruption on company and supplier operations in terms of the availability of critical components for production.

#### Risk 1

In terms of Scope 3 emissions, increasing demand from investors, customers, and international sustainability indices to have a robust supplier ESG management program in place to mitigate risks that might arise in the supply chain and to transform the industry by setting sustainability targets and making transparent reporting not only for Arçelik operations but also for Arçelik's suppliers. Any failure to establish a robust ESG strategy in terms of suppliers management might result in reputational risk as well as business loss from Arçelik's end. Risk of not taking action together with its suppliers in line with Arçelik's Net Zero Emissions commitment and other sustainability targets. Physical risks are one of the most significant reasons to face with supply chain disruption especially from the perspective of reaching most significant materials that the company needs in key operations.

#### Opportunity

Arçelik's purchasing team has led a very successful strategy to hedge itself against critical component shortages by changes in the order structure and sourcing structure. The learnings from COVID supply shortages has prepared the company for potential further shortages in the supply chain.

In terms of potential supply chain disruptions due to extreme weather Events, Arçelik is in close collaboration with its suppliers to get them understand the risks associated with the climate crisis on operations and financials for Arçelik and its suppliers in the value chain. As mitigation measures, Arçelik started to collect GHG emissions, water, waste, energy data from its suppliers and asked its suppliers to commit to set publicly available long term targets on these items to create a more resilient supply chain strategy for climate risk mitigation. Up to date, 183 suppliers have committed to set long term targets and improve their environmental performance. Arçelik intends to have the 183 suppliers set their targets as of 2023 publicly.



## Annex 11.4: Other ESG-Related Risks & Opportunities

### OTHER ESG RISKS AND OPPORTUNITIES

#### RISK TYPE: DIGITALIZATION, CONNECTED DEVICES AND CYBERSECURITY

**Term:** Short-Medium Term

**Financial Impact:** Medium

**Likelihood:** High

#### Risk

Connected appliances, data ownership, cybersecurity, smart home systems, AI, IoT, 5G/6G and cloud computing are among digitalization trends that will have impact upon home appliances industry. Arçelik needs infrastructure in place to store and secure the data and needs to comply with different standards posed in each country in terms of data storage. Complying with all standards in different continents causes financial burden for the company. Arçelik believes digitalization, connected devices and the related cybersecurity risks are interconnected. The company needs to keep up with the demand for connected devices in order not to fall back against the competition. Fragmentation on the data privacy issues in local markets that Arçelik operates and possible data localization obligations cause barriers to the flow of the data which jeopardize the company's competitiveness. This represents an important risk in demonstrating compliance and also causes risk of additional investment cost to localize data storage.

Risk 2

#### Opportunity

Together with the dedicated Sustainability Team, the specialized IoT Team in Arçelik closely follow up regulations posed by different countries and also regulations in the EU (GDPR) and continue to advocacy activities in countries that the company has operations for setting predictable rules on data flows in line with the GDPR which promotes the protection of personal data without extra burden. Arçelik implements ETSI 303645 IoT security standards for connected products. For countries which do not accept this standard as a reference (i.e. China and USA) there are different applications in line with different technical standards. Cybersecurity risks are closely monitored by the Finance & Enterprise Risk Directorate and Risk Management Committee. A cyber risk project has been conducted with consultancy of AON which was aiming to identify the cyber risk profile of Arçelik and determine the performance of current risk control strategies. In addition, Arçelik's balance sheet exposures resulting from the identified cyber risk scenarios have been evaluated. The Global Cybersecurity Insure Policy started to cover the cyber risks and business interruption risks to minimize the company's exposure risks related to use of personal data as of 2020. A hardware security mode is integrated into Arçelik's connected devices. The company is a pioneer in its industry to integrate this module in the devices. In 2018, Arçelik was selected as the security champion in the UK by IoT Security Foundation. In 2021, based on the "Evidencing the Cost of the UK Government's Proposed Regulatory Interventions for IoT" report prepared by RSM UK Consulting LLP, YouGov and the European Center for International Political Economy for DCMS, the Beko HomeWhiz 2018 IoT Security Champion Smart Dishwasher has been selected as the only product to meet the UK market's cybersecurity criteria. In order to ensure secure smart home technology for our customers, HomeWhiz appliances are certified by VDE. The secure HomeWhiz servers ensure access to smart appliances is subject to strict authorization checks. Arçelik is also certified by Common Criteria, which is the internationally recognized cybersecurity certification at EAL2 level. Arçelik New IOT products' cybersecurity performance was tested by ISTECC, (IoT Security Test and Evaluation Center) in Turkey. Arçelik Electronic Plant's IIOT/OT network infrastructure's cybersecurity resilience was tested against malicious attacks by ISTECC in Turkey. In addition, the connected Beko refrigerator became certified at silver level to the IASME IoT Security Assured Scheme.



## Annex 11.4: Other ESG-Related Risks & Opportunities

OTHER ESG RISKS AND OPPORTUNITIES	
Risk 3	<p><b>RISK TYPE: WEEE FEES</b></p> <p><b>Term:</b> Short-term</p> <p><b>Financial Impact:</b> Medium</p> <p><b>Likelihood:</b> High</p> <p><b>Risk</b></p> <p>There are many factors affecting WEEE collection rate. The municipality collection infrastructure, consumer habits, unofficial collection streams and ability of the responsible organizations collecting the waste on behalf of manufacturers are the main criteria for WEEE activities. Based on the concept of Extended Producer Responsibility, Arçelik is responsible for the proper collection and treatment of the end-of-life products once they are put on the market by Arçelik. The company has a risk in not reaching WEEE collection targets and not effectively securing WEEE collection due to illegal collectors. A Modulated Fee, which is expected to be commissioned in Europe in the near future, will be applied by taking into account products' durability, reparability, reusability, and recyclability and the presence of hazardous substances, thereby taking a life-cycle approach. Arçelik may face the risk of high modulated fee payments.</p> <p><b>Opportunity</b></p> <p>In Turkey, Arçelik has two WEEE recycling facilities. With take back campaigns, Arçelik collects old products from the market regardless of their brand. The collected old products are recycled in Arçelik's WEEE recycling facilities and contribute to a circular economy. Since 2014, energy saving equivalent to 64 wind turbines with 2.5 MW capacity and water saving equivalent to daily water consumption of 8.1 million households have been obtained. In countries outside of Turkey, Arçelik works with collective schemes which are responsible to collect and recycle the WEEEs. The company works on increasing durability, reparability, reusability of the company's products and alternative end of life stages to contribute circular economy. Arçelik is considering the feasibility of expanding the company's WEEE facilities in other countries. The company is working on introducing refurbished products in the Turkish and European markets.</p>
Risk 4	<p><b>RISK TYPE: INTRODUCTION OF ICT TOOLS</b></p> <p><b>Term:</b> Short-term</p> <p><b>Financial Impact:</b> Low</p> <p><b>Likelihood:</b> High</p> <p><b>Risk</b></p> <p>This contains the risk of falling behind and not reaping the benefit of new technologies and losing interaction with the customer in terms of circular economy business models.</p> <p><b>Opportunity</b></p> <p>Arçelik is involved in a EU H2020 project called "CSERVEES", which aims to boost circularity in the electrical and electronic sector. For the CSERVEES demo project, together with Arçelik's partner Circularise, the company is using blockchain technology to create a digital twin of the recycled material and enabling suppliers to provide certification related to their raw material, manufacturers to trace the parts and even customers to trace the recycled parts in the product via QR codes integrated in the product and/or product parts. The digital twins of the raw material will be produced via blockchain and with the QR code integrated at the back cover of the TV and in the washing machines, the end users will be able to get information on which type of recycled material has been used, as well as information on Arçelik and its circular economy efforts, etc. There is an opportunity for the end-of-life products in the dismantling process since this could give us the opportunity to trace the formula of the plastic parts and whether they are Arçelik products or not. Arçelik is working with the company's project partner Circularise to expand our partnership outside the scope of the CSERVEES project to implement this technology in serial production. There is an opportunity in terms of the marketing benefits and interaction with the customers to tell them about Arçelik's sustainability journey using QR codes.</p>



## Annex 11.4: Other ESG-Related Risks & Opportunities

### OTHER ESG RISKS AND OPPORTUNITIES

#### RISK TYPE: PLASTIC POLLUTION

**Term:** Short-term

**Financial Impact:** Low

**Likelihood:** High

#### Risk

According to the 2022 Circularity Gap Report, to keep the economy thriving and to live in a habitable world, global circularity needs to be doubled from the current 8.6% to 17%. There is an increasing demand from customers for products that use recycled materials and recycled packaging. However, there are major risk items which need to be considered, such as regulations which force industries to prevent plastic pollution and increase recycled plastic usage, regulations prohibiting import of recycled plastic and industrial symbiosis, rising costs due to upcoming regulations and introduction of potential taxes on increasing recycled content in the products and in packaging, fluctuating recycled plastic raw material price, quality, durability and hazardous chemicals management concerns in using recycled plastic, scarcity of plastic recycling infrastructure in countries where Arçelik operates, introduction of regulations on producers of washing machines related to microplastic filters in France as of 2025, starting from March 1, 2021, EU Eco Design Directive to take into consideration the feasibility studies on mandatory requirement of having a microfiber filter in washing machines, California, USA, beginning from January 2022 to impose integrating a filter system in all washing machines and laundromats, including laundry services in all machines owned or operated by a state entity. The implications on household appliances are not clear yet, but they are being worked on. There are taxes planned to be introduced in UK, Italy and Spain on plastic packaging. According to the regulation, which is stated to be valid as of April 2022 by the UK, all plastic packaging will need to have at least 30% recycled content and for those packaging that does not contain at least 30% recycled content, a fee of 200 pound per tons will be applicable. Similar regulations are likely to become widespread in other countries as well. In this case, Arçelik may encounter high packaging costs.

Risk 5

#### Opportunity

Arçelik produces some of the most innovative products in the market which aim to find solutions to the plastic pollution, especially saving oceans from plastics. Arçelik R&D develops high-performance and eco-friendly recycled plastic formulations to replace their virgin counterparts without sacrificing the durability of the products. Arçelik's holistic approach takes almost all the plastics in the company's products into consideration to maximize the plastic recycled content. A total of 7,216 tons recycled plastics and 34 tons bio-composite plastics was used in 2021. Please refer to Planet, Recycled Plastics for further information on Arçelik's innovative product range that uses recycled plastics as well as bio plastics. Arçelik is expanding the company's recycled plastics studies to include chemical recycling studies and is cooperating with some of the most reputable partners in this area. Arçelik is also exploring opportunities to use recycled materials from Arçelik's own WEEE recycling facilities in products to close the loop in production. The company is developing formulas to use packaging waste and turn it into a component to be used in Arçelik's products. A working group involving all factories and the central R&D has been established to switch to sustainable packaging alternatives and to mainly end the EPS consumption in packaging in 2021, EPS has been replaced with recycled and recyclable cardboard or molded pulp in hob, hood, small domestic appliances and consumer electronics categories. There are ongoing studies in each and every global factory network.



## Annex 11.4: Other ESG-Related Risks & Opportunities

### OTHER ESG RISKS AND OPPORTUNITIES

<p>Risk 6</p>	<p><b>RISK TYPE: HUMAN RIGHTS AND ETHICS IN THE ENTIRE VALUE CHAIN</b></p> <p><b>Term:</b> Short-Medium Term</p> <p><b>Financial Impact:</b> Low</p> <p><b>Likelihood:</b> Low</p> <p><b>Risk</b> Reputation risk arising from potential human rights violations across own operations and in the value chain. Pressure from key stakeholders to prove that companies handle human rights risks in a responsible and accountable way throughout their own operations and supply chain. Risk of losing brand and company reputation, employee commitment, customer loyalty, business partners, trust and revenue, financial loss, occurrence of legal consequences, potential disruptions in the supply chain in case of a crisis, potential human rights violations are the most possible and significant risks.</p> <p><b>Opportunity</b> All Arçelik employees and business partners, including the company's temporary employees and interns, are obliged to comply with the Global Code of Conduct and Related Code Policies, and Arçelik expects them to internalize and follow these rules. In 2020, the company communicated the Global Code of Conduct and related policies in 18 languages and completed the launch globally. The Global Ethics Committee is led by the CEO. Koç Holding Consumer Durables President, who is in the Board of Arçelik, is responsible to report to the Board about activities of the Global Ethics Committee and future compliance agenda of the Company. The Code of Conduct commits to comply with the UN Global Compact, the OECD Guidelines for Multinational Enterprises and Universal Declaration of Human Rights. Arçelik Global Human Rights Policy commits to comply with the ILO Declaration on Fundamental Principles and Rights at Work, OECD Guidelines for Multinational Enterprises, UN Global Compact, UN Guiding Principles on Business and Human Rights, Universal Declaration of Human Rights, Women's Empowerment Principles and Worst Forms of Child Labour Convention. In terms of Ethics and Human Rights, Arçelik operations and Arçelik suppliers are audited by independent auditors. <i>In accordance with Human Rights Policy, suppliers are audited by independent auditors.</i> Human Rights Department has been established within the Human Resources. This department is also responsible for convening Human Rights Committee, chaired by Chief People Officer.</p>
<p>Risk 7</p>	<p><b>RISK TYPE: CONFLICT MINERALS</b></p> <p><b>Term:</b> Short-Medium Term</p> <p><b>Financial Impact:</b> Medium</p> <p><b>Likelihood:</b> Medium</p> <p><b>Risk</b> The main risk arises from the lack of conflict minerals integrated supplier management in corporates.</p> <p><b>Opportunity</b> In 2016, in line with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas, Arçelik initiated the Conflict Minerals Project to closely monitor suppliers of conflict minerals as part of the strategy to mitigate the related risks. Arçelik has company's own Conflict Minerals Management Program which is compliant with OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict Affected and High Risk Areas.</p> <p><i>For details, please refer to Arçelik's Conflict Minerals Policy and Conflict Minerals Due Diligence Report 2021 for further information.</i></p>



## Annex 11.4: Other ESG-Related Risks & Opportunities

OTHER ESG RISKS AND OPPORTUNITIES	
Risk 8	<p><b>RISK TYPE: EMPLOYEE ENGAGEMENT</b></p> <p><b>Term:</b> Short-Medium Term</p> <p><b>Financial Impact:</b> Low</p> <p><b>Likelihood:</b> Low</p> <p><b>Risk</b> There is a significant risk arising from not being able to attract and retain the best talent due to lack of communication of ESG strategies to employees. Risk of not raising the next generation workforce in line with the company culture and requirements. Risk of inadequate investment to employee development. Inadequate actions for women empowerment in the workplace, especially in STEM-related fields. Inability to react to adverse labour-consequences of technological advancements.</p> <p><b>Opportunity</b> Long-term ambitious targets to provide the best working environment for employees. Targets include employee satisfaction and work/life balance. Leadership and hourly training targets for employees. Targets to raise the next generation female directors in science, innovation and engineering-related fields. Incorporating cultural commitments into global and local practices. Creating talent management strategies to have a robust talent strategy such as, trainings (Leader in You, Talent in You and Future in You programs to equip employees with the competencies required to function the best in their role), supporting gender diversity, encouraging women, training the future women leaders with Women's Impact initiatives, Technical Academy 4.0 program to equip hourly-workers with the skills to embrace Industry 4.0 production strategies and mitigate adverse consequences of technological advancements on labour, Tech Pro Academy to develop engineering skills, Digital Training Programs, A Ticket For Your Future, a reverse brain drain project to attract the best talent in foreign countries back to Turkey, University Industry Cooperating; employing students doing a Master's thesis as part-time employees. Students employed in this manner write their thesis in a subject related to Arçelik.</p>
Risk 9	<p><b>RISK TYPE: COMPANY AND BRAND REPUTATION RISK</b></p> <p><b>Term:</b> Short-Medium Term</p> <p><b>Financial Impact:</b> Low</p> <p><b>Likelihood:</b> Low</p> <p><b>Risk</b> There is a pressure from customers, especially millennials, on demand for responsible business and creating shared value with communities and other businesses. Risk of losing company and brand reputation as well as customers/investors in the event the investors and customers are not satisfied with the ESG integration strategies of the companies and the brands. Risk of not providing innovative and sustainable product portfolio for customers. Risk of not creating shared value for the customers served and the stakeholders who are a part of our value chain. Lack of employee engagement in the absence of a strategy showing employees the financial, societal and environmental outcomes of business with purpose. Losing employees due to lack of sustainability engagement and pay linked to sustainability.</p> <p><b>Opportunity</b> Brands with purpose: Sustainability is integrated into the core strategy of Grundig and Beko Brands. Grundig focuses on respecting nature and respecting food and food waste, Beko focuses on healthy living lifestyles, wellness and the fight against obesity and unhealthy eating choices. Using responsible innovation, Arçelik touches customers' lives with products that create solutions to some of the most complex sustainability issues, such as plastic pollution and energy consumption. Washing machine tubs and air conditions produced using recycled PET bottle, oven parts produced using recycled waste fishnets, the microfiber filter and the solar fridge are some examples that create mutual value. Arçelik's Sustainability as a Business Model strategy focuses on engaging employees in the core strategy of the company. With Arçelik's distinction from the competition with innovative product solutions offered and the best results achieved in the global indices, employees see firsthand that sustainability pays off. The strategy is to enhance the image of Arçelik and create employee satisfaction and make candidates want to work in Arçelik due to its effective ESG strategy and solutions. Sustainability targets related to GHG reduction, improving circularity, and improving other ESG criteria are included in the balance score cards of different departments such as Factory Product Directors, Purchasing Director, Chief Marketing Officer and the employees reporting to them. Besides that, Arçelik launched the company's "Develop Goodness" project called as IYI-GE which aims to answer the question of "what can we do for our planet?" Arçelik IYI-GE Platform develops projects that focus on responsible production and consumption. Arçelik "Climate-Friendly Movement" is first result of the IYI-GE Committee. With this aim, the first Arçelik store was opened in Izmir, Turkey that is a climate-friendly store with automated illumination system installed in this store is 30% more energy-efficient than the standard ones used in other stores and textile materials that are made from sustainable fabrics. The concept of Arçelik's climate friendly stores is to give consumers access to sustainable technologies and products that support eco-friendly lifestyles. Finally, Arçelik aims to understand the brand perception from the eyes of people through brand perception surveys. Based on the results of those surveys Arçelik is able to measure the sustainability impact of the company. Based on the scores, Arçelik defines sustainability brand attribute targets to the brands to be realized in a short-time.</p>