

Consumption: Food and Beverages

Sustainable Development Sector Analysis Framework

January 2018



This is a methodological document aimed at clarifying how Mirova takes into account sustainable development issues in the framework of the environmental, social and governance analysis of each sub-sector of activity.

An affiliate of:

Sectors: Ingredients;
production, processing and
distribution of tobacco, food
and beverages; restaurants,
food retail

The world's waistline is getting bigger. In 2016, more than one in three people over the age of 18 worldwide were overweight, and 13% were considered obese (WHO, 2017). This epidemic is no longer contained to high-income countries, with overweight and obesity rates increasing in middle- and low-income countries, in urban areas and amongst children. Childhood obesity causes even greater concern as it is associated with a higher chance of diabetes, disability and premature death in adulthood. At the same time, undernutrition continues to be a global issue. This presents the industry with an opportunity for growth and increasing social impact. Companies can use their experience to provide healthful, affordable and highly nutritious food and increase awareness of the importance of healthy and proper eating. Furthermore, the global agricultural supply chain poses significant threats to the environment and society. Deforestation due to the spread of farmlands and human rights violations at these farms are all current consequences of having to feed a growing population.

The tobacco industry is also found in this sector. The tobacco epidemic is one of the biggest and most serious global public health threats. With 12% of deaths worldwide in adults over the age of 30 years old attributed to tobacco, its negative contribution to sustainable development is unavoidable. As governments across the world ratify and implement the WHO Framework Convention on Tobacco Control to reduce demand for tobacco, companies in the sector are being forced to rethink their place in society and the role they wish to play.

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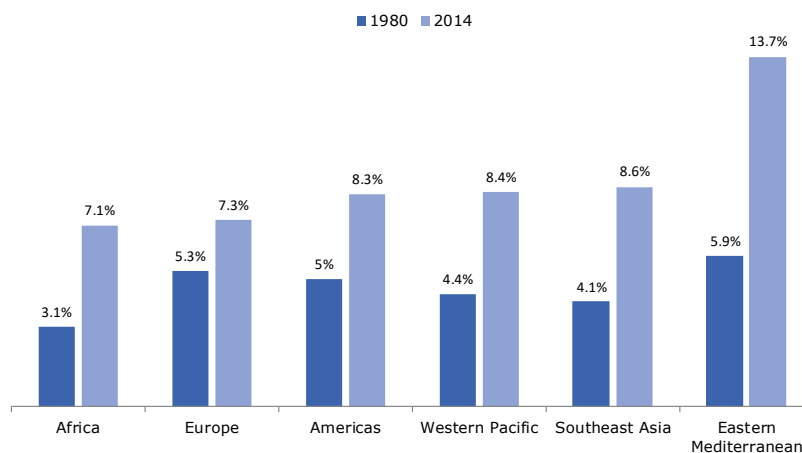


Sustainability Opportunities

Health and Nutrition

The increasing number of obese and overweight people is causing a global health epidemic. According to the International Diabetes Foundation, “Diabetes and obesity are the biggest public health challenge of the 21st century.” Studies have shown that there is a clear link between obesity and type 2 diabetes – with this form of the disease resulting from excess body weight and physical inactivity. However, effective approaches such as policies and practices promoting good health for everyone are available to prevent type 2 diabetes, the most common type of the disease (WHO, 2016).

Figure 1: Mirova Equity Holdings by Sector



Source: Mirova / (WHO, 2016)

In order to address this increasing epidemic, governments are looking for ways to influence their populations to adopt healthier lifestyles, particularly with regard to food intake. Measures include taxes on certain added ingredients and mandatory nutritional labelling. One example is a sugar tax involves governments increasing tax on food and beverages based on the amount of sugar added to products. Mexico, France, Norway, Finland, and Hungary currently have sugar taxes in place and many other countries considering introducing one. In certain markets, sugar taxes have had immediate effects on the consumption of products with high sugar content, thereby also representing a material financial risk for companies whose product portfolios contain high levels of sugar. However, longer term effects of these taxes are still to be determined. Another measure used is mandatory labelling. While nutritional labelling is already implemented, governments are currently considering ways to make labels easier to read and more representative of the actual nutrition content of the food in question. Compared to the sugar tax, mandatory labelling generates slightly less resistance from companies as it aims to increase consumer awareness rather than directly discouraging the purchase of products. Furthermore, this measure also addresses the issues of fat and salt content, which are not affected by the sugar tax, but that are also controversial when it comes to health.

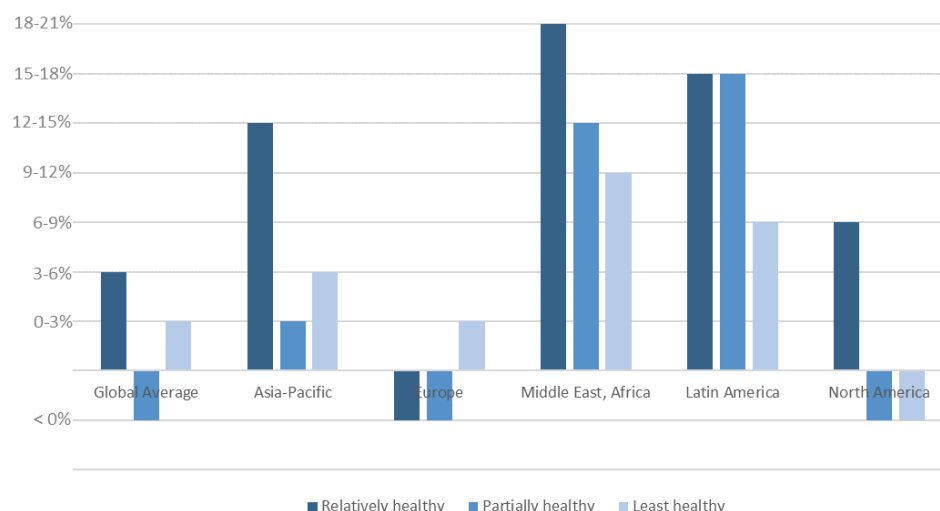
There is also an increasing demand by consumers for healthier food options such as fresh, natural, functional and minimally processed foods. Consumers are increasingly realizing that their diet is an important factor in staying healthy and this is reflected in their consumer buying patterns (Figure 2). Furthermore, studies show the negative effects eating animal products can have on health. The WHO's categorisation of red meat¹ as Group 2A (probably

¹ Red meat refers to all mammalian muscle meat, including beef, veal, pork, lamb, mutton, horse and goat.



carcinogenic to humans) and processed meat as Group 1 (carcinogenic to humans) is an example of this. Consumers are also thus cutting back on their meat consumption and choosing more plant-based alternatives for protein. The desire to stay healthy is more than a trend and is only likely to increase as life expectancy rises and people become more conscious of the long-term effects of their dietary choices.

Figure 2: Sales changes between 2012 – 2014 for selected relatively healthy², partially healthy³ and least healthy⁴ categories



Source: Mirova

Companies can also negatively contribute to the global populations' health through the products they manufacture and sell. Two products in particular have been identified as detrimental to human health: tobacco products and sugar-sweetened beverages.

The tobacco epidemic is one of the biggest and most serious global public health threats – its effects counteracting the advances in health made in the past. The WHO estimates that roughly 12% of all deaths among adults over the age of 30 are due to tobacco. Of the estimated 1 billion smokers worldwide, 80% live in low- and middle-income countries where the burden of tobacco use is heaviest. Furthermore, in some countries, tobacco farms frequently employ children from poor households. They and other tobacco farmers are exposed to “green tobacco sickness” which is caused by the absorption of nicotine through the skin from the handling of wet tobacco leaves.

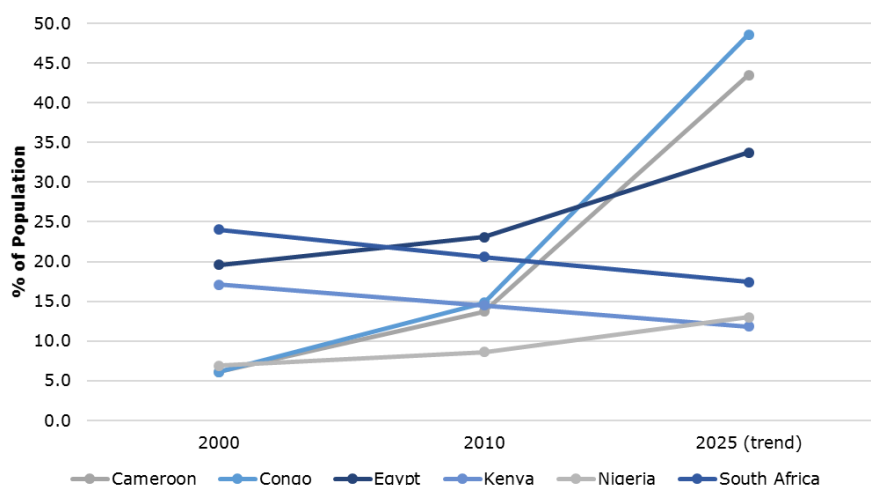
2 Relatively healthy: water, dairy-based shakes, fruit, tea, vegetables, yogurt

3 Partially healthy: bread, cheese, cereal, granola bars, juice, popcorn, pretzels

4 Least healthy: carbonated soft drinks, chips, chocolate, cookies/biscuits

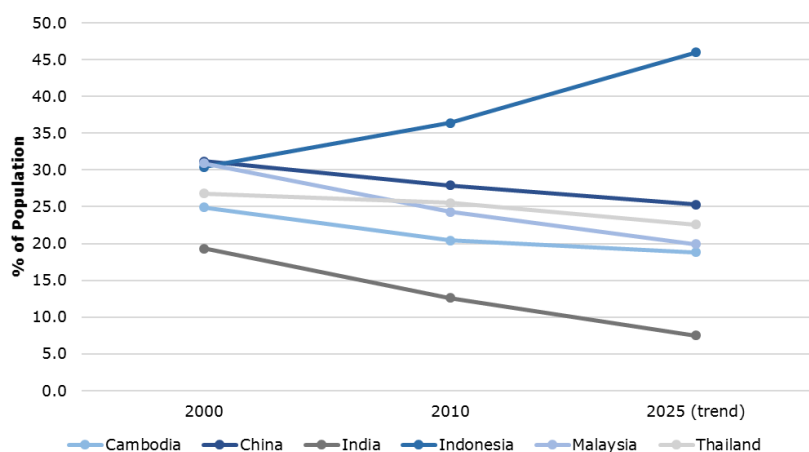


Figure 3: Trends in Tobacco Prevalence amongst Adults aged 25-39 in certain African Nations, 2000-2025



Source: Mirova/ (WHO, 2015)

Figure 4: Trends in Tobacco Prevalence amongst Adults aged 25-39 in certain Asian Nations, 2000-2025



Source: Mirova/ (WHO, 2015)

In 2005, the WHO Framework Convention on Tobacco Control (WHO FCTC) came into force. Its main objective is to protect present and future generations from the devastating health, social, environmental and economic consequences of tobacco consumption and exposure. Ratified by 174 countries covering 90% of the world's population, the WHO FCTC is a legally binding treaty by which these countries commit to developing and implementing a series of evidence-based tobacco control measures to regulate the tobacco industry, reduce demand for tobacco and provide alternatives to those involved in growing and producing tobacco. Since then, the fight for tobacco has been gaining ground, as countries have put in place measures such as plain packaging, increased taxes, ad bans, etc.

Nevertheless, the use of tobacco is still increasing among adults in developing countries (particularly in some African nations and Indonesia), demonstrating that the fight against the use of tobacco still has a long way to go.

Tobacco companies play a big role in promoting tobacco use. It is claimed that they have long known of the negative effects of tobacco use on human health but decided to suppress this information and publicly deny it (WHO, 1998). While regulation has been increasing in developed countries, thereby decreasing the number of smokers in these countries, regulation is still limited in many developing countries where several tobacco companies have found new markets. Tobacco companies have also branched out to other technologies that would still allow the intake of nicotine and tobacco such as e-cigarettes and heat-not-burn. Consensus



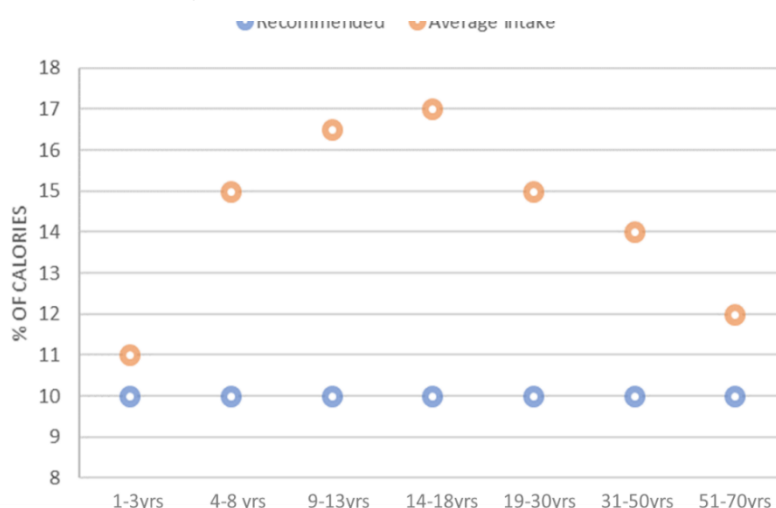
on the health impacts of these new products is yet to be made. Until an independent consensus is agreed upon, precautionary principle would consider that these products be as harmful as their predecessors.

The overconsumption of added sugar⁵ has also been proven to have negative impacts on human health especially due to their link to type 2 diabetes and obesity. Further studies also show a relation between a high-sugar diet and a higher risk of dying from heart disease while clear connections are yet to be determined (Harvard Health, 2018). There are also links to other noncommunicable diseases such as hypertension, non-alcoholic fatty liver disease and polycystic ovarian disease.

Furthermore, added sugar is not a required nutrient for a healthy diet – its use, as such, is for other purposes like flavour/taste or increasing the shelf life of the product. The WHO recommends that the intake of added sugars should be reduced to 10% of daily energy intake for both adults and children. Reducing added sugar intake to 5% of daily energy intake would provide further health benefits. 10% of daily energy intake translates to roughly 50 grams of sugar for an adult depending on their daily activity.

The previous paragraph outlines the impacts these has on society, the different measures that countries use to curb consumption of these products and the potential financial consequences these would have on food and beverage manufacturers. Sugar tax, in particular, has been highlighted by several regulators as an effective way to bring down the consumption of sugar. Sugar taxes, in particular, target sugar sweetened beverages. While added sugars are found in almost all manufactured foodstuff, sugar sweetened beverages are the main source of added sugars. Furthermore, the consumption of sugar sweetened beverages is highly linked to weight gain as it tricks the body's appetite-control system. Liquid calories are not as satisfying as calories from solid foods thereby tricking the body to consume more. Thereby resulting in a double impact – not only is a person consuming a beverage made with nutrients not necessary for a healthy diet but that person is likely to consume more calories because its body is not satisfied with the liquid calories ingested.

Figure 5: American Average Intake of Added Sugars as a Percent of Calories by Age Group (Both Sexes) vs. WHO Daily Guidelines



Source: Mirova / (USDA, 2015)

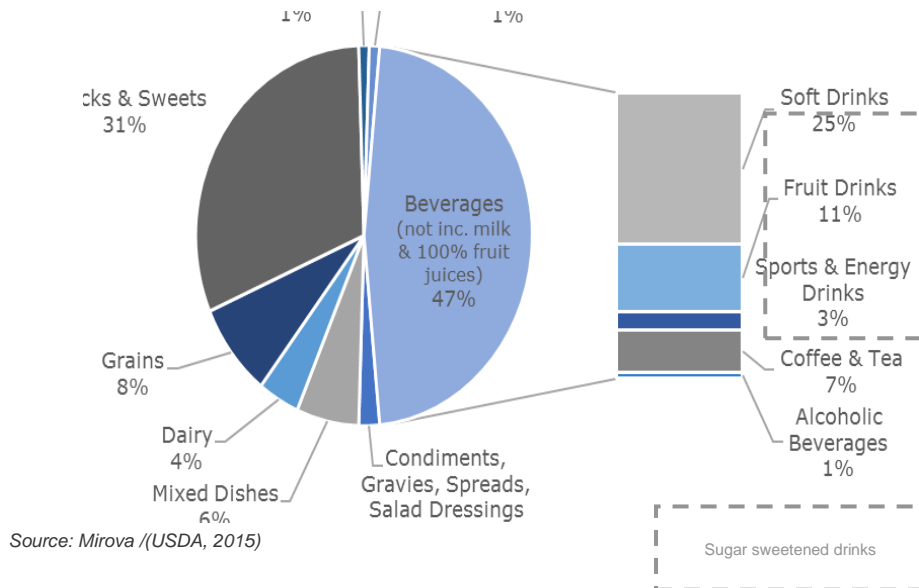
Beverage companies have had a long history with regards to attributing the rise of global obesity and type 2 diabetes to the increasing consumption of added sugars particularly through their products. While increasingly sedentary lifestyles also played a role, both factors played major roles in the rising obesity and type 2 diabetes. Due to regulatory and public pressure, companies have begun efforts to decreasing the amount of sugar found in their beverages and have started offering alternatives that use low-calorie sweeteners to produce

⁵ Added sugar, also known as free sugars, are defined as sugars that are added to food or drinks by the manufacturer, cook or consumer as well as sugars naturally present in honey, syrup, fruit juices and fruit juice concentrates.



zero calories. While decreasing the amount of sugar in these beverages would make them less harmful, they still remain harmful for as long as they contain added sugars. With regards to alternative products made with low-calorie sweeteners, it has yet to be accepted as a solution to their regular products with regards to health. Until something more conclusive exists, these products will be treated the same as the products they aim to replace.

Figure 6: Food Category Sources of Added Sugar in the US Population Aged over 2 years



We look for companies that sell food and ingredients with strong health and nutrition positioning, including organic, fortified foods, medical nutrition, naturally healthy foods (e.g. fresh fruits and vegetables, plant-based proteins), natural ingredients (e.g. probiotics, omega-3s, antioxidants, etc.), and other ingredients that increase the nutritional content of foods. The portfolio mix of the companies will be analysed between the % that positively contributes to a healthier population and the % that negatively affect this goal.

Companies that manufacture and sell tobacco products and sugar sweetened drinks pose negative health consequences on its consumers. Therefore, companies involved in the production and sale of tobacco and of sugar sweetened drinks are rated as “negative” with regards to sustainability opportunities⁶.

KEY INDICATORS

- % of product portfolio that positively contributes to improved health and nutrition
- % of product portfolio that contribute negatively to health
- % of R&D dedicated to increasing exposure to the theme

⁶ This applies only to the manufacturing and production of tobacco and its derived products; this does not apply to component manufacturers (e.g. filters).

BOX 1: Alcohol

With regards to harmful products, alcohol is also a product of concern. The consumption of tobacco is harmful in all its forms and its consumption must be reduced and eventually eliminated. Sugar, on the other hand, is slightly different. The consensus is more to reduce the daily intake of added sugars from the human diet. The most effective way to do so is by reducing and even eliminating the consumption of sugar sweetened drinks, given their characteristics. Additionally, both industries have similarities in overlooking the effects their products have on human health.

Alcohol and its industry is a different story. First, the degree of its harmfulness is dependent on its usage. As such, the WHO's policy recommendations are towards creating an environment that would promote the responsible consumption of alcohol. Furthermore, the industry has a long history of collaboration with civil society towards promoting the responsible consumption of alcohol products.

Taking our lead from the WHO's position, Mirova analyses how alcohol companies take the WHO's policy recommendations on the responsible consumption of alcohol into consideration in their communication with consumers. Other measures that companies can put in place to encourage and promote its responsible consumption are also analysed in the sustainability risk review. This is further elaborated in the section on Responsible Marketing below.

Sustainable and Sustainably Certified Products

There are various ways in which current agricultural supply chain impact negatively on the environment and on society. The most common of these are: deforestation; damage to natural habitats of animals; water and ground pollution; and impacts on the rights of smallholder farmers. Consumers' awareness of these topics is gradually increasing, partly due to campaigns by concerned non-profit organizations and the increasingly common media reports on these issues. The best-known examples are the impact the palm oil industry has on the natural habitats of orangutans and the continued presence of child labour in cocoa farms. Additionally, more public attention is being paid to how much smallholder farmers are paid for their produce. All this has led to an increasingly conscious consumer who wants to ensure that the products he/she buys do not contribute to the negative impacts listed above and that the farmers at the end of the chain get fair pay and treatment.

Table 1: Levels of Clean Label and Food & Beverage Sales Growth vs. One Year Ago, in the U.S.

Label Description	Food & Beverage Sales vs. 2016
No restrictions	< 0%
Free from: - artificial ingredients (colors, flavors, preservatives, sweeteners) - hormones - antibiotics	0-1%
Free from: - ingredients listed above - unrecognizable ingredients (e.g. sodium oleyl lactylate 481)	1-3%
Made from: - Recognizable ingredients - Less than 10 ingredients	1-3%
Certified and labelled: - Non-GMO - Organic - Fair trade	6-9%

Source: Mirova

Companies can appeal to the conscious consumer by ensuring the traceability of where these products are sourced from, increasing their transparency on how their products are sourced and produced, and making sure that their products are sourced and produced in a responsible and sustainable manner, for example through third-party certifications. Companies can further promote sustainable living and sustainable choices through their well-known brands.

Consumer confidence in the ability of companies to sustainably source and produce their products is low. As such, the best and most credible way for companies to reassure consumers that they adhere to certain standards is through third-party certifications. Third-party certifications provide consumers with the transparency and credibility required so they can be sure that their purchasing decisions do not negatively impact upon the environment and/or society. While third-party certifications are not perfect, they remain the best way of reassuring external stakeholders on the sustainability of a company's supply chain.

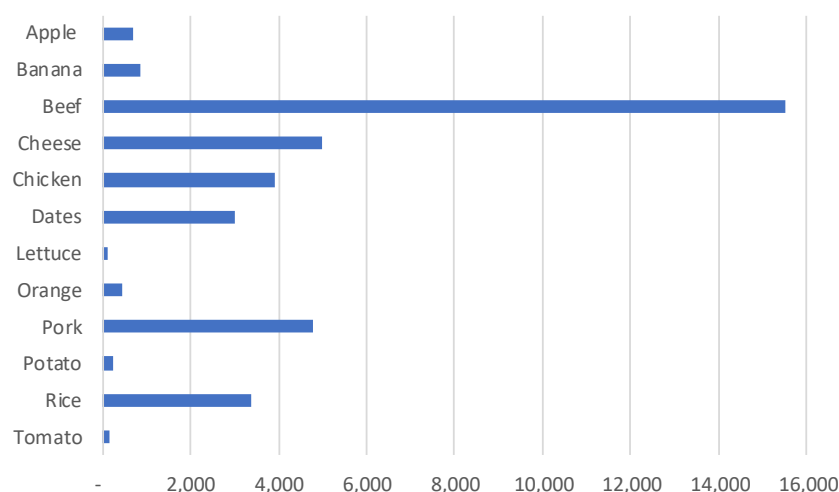
Third-party certifications vary depending on the underlying theme, but all of them have minimum social and environmental standards that must be respected. What usually varies is the focus of these standards (e.g. social certifications, such as the Fair Trade certification, have a stronger focus on the social aspects of the supply chain, whereas Certified Organic, focuses more on the use of pesticides and fertilizers).

Furthermore, more and more consumers are becoming aware of the negative impacts animal-based products have on the environment (e.g. carbon emissions, animal welfare) and have



therefore decided to change their diets to have less of an environmental impact. This is done either by reducing the amount of animal products consumed (i.e. reducetarian), eliminating animal products (i.e. vegetarianism) or eliminating animal products and by-products (i.e. veganism). Many countries have recorded an increase in people identifying themselves as vegetarians or vegans in recent years. According to the UK's Vegan Society, there were three and a half as many vegans in 2016 as compared to 2006 – amounting to more than half a million people. Health is seen to be a strong driver for this with the environmental impacts of animal products coming a close second.

Figure 7: Global Average Water Footprint of Food Items (litres per 1 kg)



Source: Mirova / (Hoekstra, 2008)

We look for companies that have third-party environmental and/or social certifications beyond the local legal requirements. Companies that provide more environmentally friendly alternatives to animal protein (i.e. plant-based proteins) are also considered.

KEY INDICATORS

- % of products with a third-party sustainably sourced certification
- % of products that are sustainable (e.g. plant-based proteins)

Inclusive Business Models

Populations in low-income (i.e. bottom of the pyramid) areas have difficulty accessing formal markets, with most people in this section of the population working in the informal economy. Being detached from formal markets, those in low-income populations pay a poverty premium for basic commodities (e.g. food, water, housing, energy). A poverty premium is when prices for basic products are higher for the poor than for those with higher incomes. Studies estimates that the low-income population accounts for around 2.7 billion people. For companies this represents an untapped market of both consumers and labour. Companies can use market-based practices to help incorporate this population into formal markets. One way they can do this is through integrating them as different actors in the value chain either as suppliers upstream or as distributors further downstream.

Global health is facing what at first glance seems to be a contradictory battle: there are more than 800 million people suffering from malnutrition, and at the same time there are 671 million people that are obese (2.1 billion are overweight). While the prevalence of malnutrition is found mostly in developing and emerging economies, the prevalence of obesity is not isolated to developed countries, with overweight and obesity rates increasing in both developing and emerging economies, especially amongst children. As such, it is not uncommon to find certain



national and local governments fighting both obesity and malnutrition at the same time. Furthermore, those affected in developed markets are often low-income groups. The irony is that the cheapest food available on the market is not necessarily the most nutritious and healthful, sometimes leading to undernutrition despite a high calorie intake. Lack of awareness is also another obstacle in this area as people are not aware of how their diets can affect their own health. Food and beverage companies can play a significant role by not only providing nutritious and/or fortified food but by increasing awareness of health and nutrition and making it affordable and available to low-income markets where access to certain nutrients is currently limited.

Inclusive business models aim to further include people with low-incomes in their overall business strategy either as consumers or business partners (in the value chain). Experience has shown that achieving financial success in these markets is not easy. Nevertheless, if well integrated into the overall business model and strategy, inclusive business strategies can be a source of innovation and can lead to improved customer loyalty as incomes rise.

We look for companies that provide affordable and nutritious food to low-income populations and/or integrate these populations in their value chain through innovative inclusive business models. Furthermore, companies that allow for food manufacturers to produce at lower costs without sacrificing on health and nutrition are also opportunities.

KEY INDICATORS

- Presence of an inclusive business model as part of the company's core strategy
- % of revenues coming from this initiative

Exposure to Opportunities

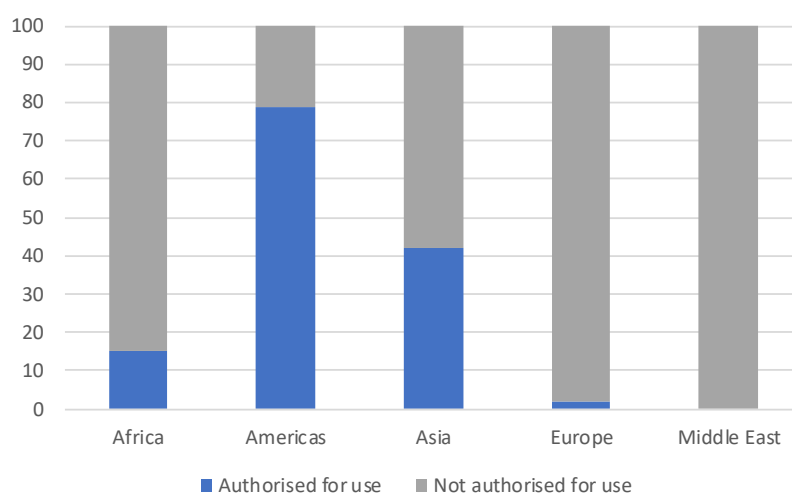
	Indicators considered : <ul style="list-style-type: none">- % of product portfolio that contributes the health and nutrition theme- % of products with a third-party sustainably sourced certification- % of revenues coming from inclusive business models		
High exposure	>50%	No presence of products with high sugar, fat or salt content	The analysis of the company's overall strategy together with its R&D focus would complement the quantitative indicators.
Significant exposure	Between 10% and 50%		
Low or no exposure	<10%		
Negative exposure	Presence in tobacco and sugar sweetened beverage production and marketing		

Environmental and Social Risk

Safety and Quality

Product quality and safety refers to spoilage, contamination, supply chain traceability, allergy labelling, and antibiotic use in livestock. These issues usually arise from companies' supply chains and, with the increasing globalization of supply chains, are becoming a greater concern. Furthermore, Europe's horsemeat scandal in 2013 and the fipronil contaminated eggs in 2017 show how issues such as adulteration and contamination are not isolated to developing and emerging markets and can, in fact, be found in developed markets where standards and supervision are generally deemed to be more robust. Controversies in this area can have a direct impact on financial performance through the costs stemming from product recalls, fines, and loss of sales due to a decrease in consumer trust. Improved disclosure around companies' food safety measures can give the public, particularly investors, a better understanding of how a company is mitigating risks and minimizing incidences. Food traceability also plays an important role in being able to quickly determine the source of the problem. Alignment with international standards on food safety management provides a good indication of companies' performance in this area.

Figure 8: Proportion of OIE Member Countries authorising antimicrobial growth promoters in animals



Source: Mirova / (World Organisation for Animal Health (OIE), 2016)

Other issues such as products that contain or are derived from GMOs⁷ and products that contain sugar, fat and salt are considered controversial with regards to the safety of their consumption. For products that contain or are derived from GMOs, the verdict has yet been delivered on if they are indeed bad for human health. They have not been present in the food system for long enough to study the long-term effects of their consumption on human health and the scientific community has yet to reach a consensus on the results of the studies that do exist. Nevertheless, consumers are increasingly keen to know if GMO is found in the food they consume. As such, transparency (i.e. GMO labelling) is the recommended route to allow the consumer to make an informed decision on what they consume and for the company to avoid any possible reputational repercussions. For other controversial ingredients such as sugar, salt and fat, there is a clear consensus that the consumption of these ingredients needs to be reduced. Companies need to put in place programs and targets aimed at reducing the sugar, fat and salt contents in their products today and further reduce the amount used in future products.

⁷ GM: genetically modified organisms



There is also growing concern about the use of antibiotics in the food system. While this is an issue of animal welfare, which is touched upon in the next section, it also impacts significantly on overall global human health. Antimicrobial resistance (AMR)⁸ is one of the biggest threats to global health, food security and development. AMR leads to new resistance mechanisms that threaten our ability to treat common infectious diseases. Without effective antimicrobials for prevention and treatment of infections, medical procedures such as organ transplants and major surgery become very high risk. While AMR occurs naturally (through genetic changes), the misuse of antimicrobial drugs, such as antibiotics, in humans and animals has accelerated the process. Misuse in animals is mainly due to the prophylactic use of antibiotics and the use of antibiotics for growth promotion rather than treatment. The prophylactic use of antibiotics in livestock involves animals being given antibiotics to prevent diseases mainly caused by close confinement and unsanitary conditions. The WHO recognizes that the high proportion of antibiotics given to animals is a significant public health concern. Consequently, legislation has followed suit with the EU banning the use of antibiotics as growth agents from 2006 and voting to ban the prophylactic use of antibiotics in 2011. Furthermore, certain consumers consider the use of antibiotics in their shopping choices. In response to increasing health risks, consumer preferences and regulations, companies must therefore work towards eliminating the prophylactic use of antibiotics and antibiotics as growth promoters in their supply chains.

For companies in this sector, we ask them to put in place a good and robust food safety management system including adherence to international standards such as the Global Food Safety Initiative, the Good Manufacturing Practices, the Hazard Analysis and Critical Control Points, or the WHO's Codex Alimentarius, effective product traceability systems, responsive product recall procedures, and a comprehensive overall management system. Suppliers should also be chosen based on the quality of their food management systems, especially their adherence to certified food safety management systems. Food recalls – their frequency, reasons and how they are handled by the company are also factored into the assessment of the company's risk management.

With regards to controversial ingredients, the company's policy on transparency on such ingredients and how it is implemented will be analysed along with the programs they have in place to reduce the use of these ingredients in their products.

In terms of the use of antibiotics in livestock and fish stocks, the strength of policies banning the prophylactic use of antibiotics and the use of antibiotics as growth promoters will be analysed. These policies need to be accompanied by time-bound goals to implement them throughout their supply chain for livestock and fish stocks and to eliminate the use of antibiotics important to human medicine.

KEY INDICATORS

- Policies and implementation on: (1) food safety and quality, (2) GMO use and transparency, and (3) the prophylactic use of antibiotics and of antibiotics as growth promoters
- Certifications or adherence to international standards and full coverage of own operations
- Inclusion of food safety management in supplier selection
- Notice of food safety violations received and percentage corrected
- Number of recalls issued, reason for recall, and total amount of food product recalled
- % of ingredients sourced from suppliers that have certified food safety management systems
- % of ingredients that are traceable
- The elimination of the use of antibiotics important to human medicine in supply chain

⁸ AMR: happens when microorganisms (e.g. bacteria, fungi, viruses & parasites) change when they are exposed to antimicrobial drugs (e.g. antibiotics, antifungals, antivirals, antimalarials, & anthelmintics)



Sustainable Agriculture

Primary raw materials for food and beverage companies come from the agricultural sector. While, due to their high importance, some of the impacts of products that come from the agricultural supply chain will be discussed in more detail below (labour rights in the supply chain and water stress management), the impact of agricultural produce is so vast and varied that it is important to address all environmental and social impacts. These impacts can include impacts on soil quality and biodiversity (particularly through deforestation), on farmers and on local communities surrounding farmlands. The Sustainable Agriculture Initiative Platform (SAI) defines sustainable agriculture as the efficient production of safe, high quality agricultural products in a way that protects and improves the natural environment, the social and economic conditions of farmers, their employees and local communities, and safeguards the health and welfare of all farmed species. The underlying themes are: farmers' skills and income, rural social and economic conditions, crop and animal welfare, biodiversity, and soil management. Investing in these themes will ensure access to key raw materials in the future as negative consequences of unsustainable agriculture, such as land degradation and soil deterioration have been shown to have lasting effects on the quality of produce and on yields.

While farms are not usually directly owned and/or operated by food and beverage companies, they nevertheless have a role to play in promoting sustainable agriculture by incorporating the adoption of sustainable agriculture practices into their sourcing and purchasing decision-making process.

We expect companies in this sector to have a sustainable agriculture policy in place, adapted to the crops they use. Partnership with societal organisations such as the Forest Trust are positively welcomed. We look at the type of performance indicators used such as evolution of supplier ratings over several years, share of purchases from suppliers with high sustainability ratings, etc. We also wish to see policies implemented throughout companies' supply chains. Disclosure of the methodology used to measure the level of supplier conformity to policies is appreciated. Furthermore, we encourage companies to make the quality of the sustainable practices implemented a factor in supplier selection. Finally, to have a truly sustainable agricultural supply chain, it is important that it be traceable.

KEY INDICATORS

- Mapping of raw materials and their impacts
- % of agricultural raw materials that are traceable to the farm
- Sustainable agriculture and/or sourcing policy with a zero deforestation for raw materials clause
- Suppliers conformity to company policies and implementation measures
- Inclusion of sustainable agricultural practices into the supplier decision making process
- Performance indicators

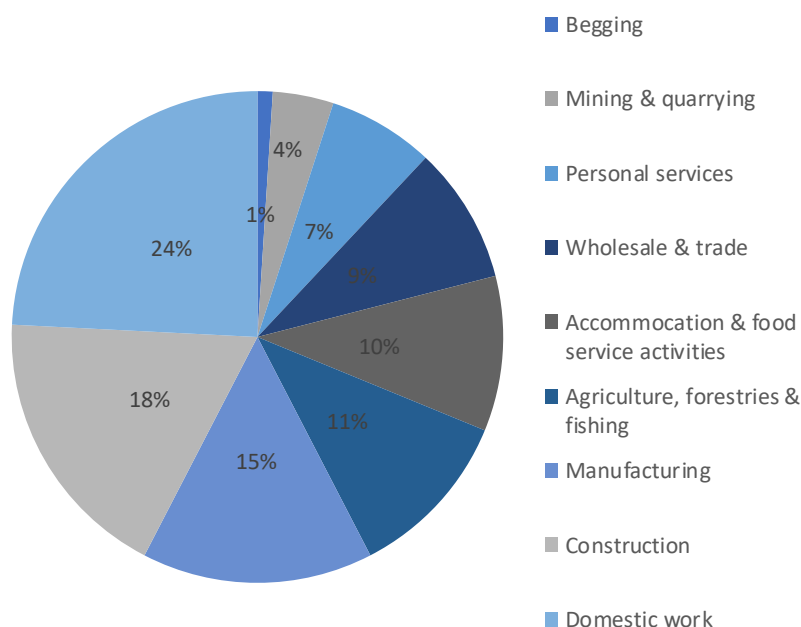
Labour Rights in the Supply Chain

Labour rights (child labour, excessive working hours, forced labour, modern slavery and human trafficking) are the most common human rights violations in the agriculture sector. Work in this sector is often labour-intensive and occurs on a seasonal basis, meaning it attracts many temporary and migrant workers. 80% of farmland in Sub-Saharan Africa and Asia is managed by smallholder farmers (farmers with lands less than or equal to 10 hectares), which increases the likelihood of child labour and undocumented labour in these farms. In these countries, it is not uncommon for the children of farmers and neighbouring families to work on farms to earn extra income. Increasing media focus on these issues have brought reputational risks to the companies involved (e.g. modern slavery in fish feed for shrimp in 2014). However, these risks have yet to fully translate into financial risks for companies.



While not many companies in this industry directly own and exploit farmland, as buyers of produce, they have the leverage to ensure that their purchases are not a product of these violations. They can also work with their partners on the ground to put in place the necessary measures to mitigate these risks and create conditions that discourage the hiring of child labour and undocumented workers.

Figure 9: Sector of Forced Labour Exploitation



Source: Mirova / (ILO, 2017)

We expect companies in this sector to put a robust supply chain management system in place that includes a section on how to minimize and eventually eliminate the incidence of human rights violations, forced labour, child labour and excessive working hours in their supply chains, particularly at the farm level. The use of certification processes is recommended where possible. Furthermore, seeing as these issues are systematic and not specific to one company or group of companies, we expect companies to collaborate within the industry and with external organizations to fully eliminate these violations from the agricultural supply chain.

KEY INDICATORS

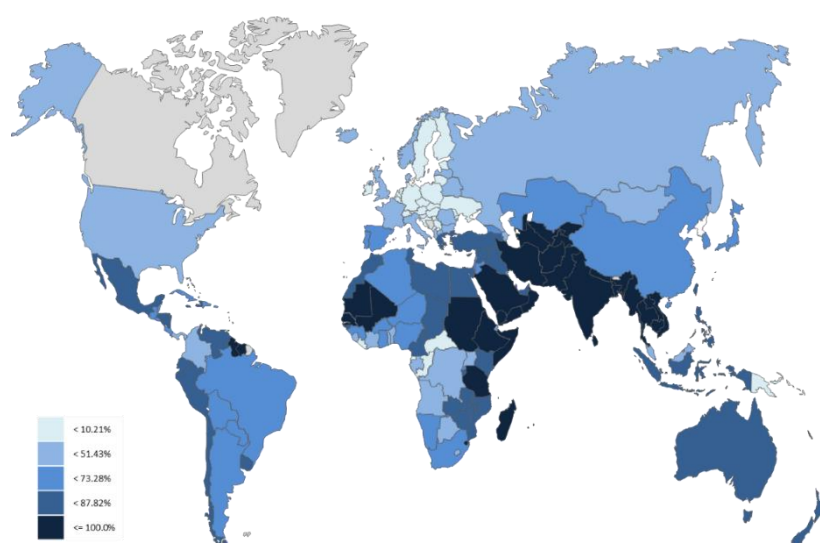
- % of raw materials that are “high risk” from a social perspective (e.g. cacao, seafood), or that are certified from a social aspect (e.g. Fair Trade)
- Code of conduct for suppliers
- Publication of supplier rating methodology and measures in place to tackle non-compliance
- Risk mapping of social risks and level of exposure
- Collaboration with other stakeholders through multi-stakeholder initiatives or direct partnerships
- Performance indicators: evolution of supplier ratings, decrease in the number of non-compliance events, etc.

Water Stress Management

The food and beverage industry is highly reliant on water for the different phases of their products' lifecycles. It is in high demand for crop cultivation, is needed for cooking, processing, and cleaning finished goods, and is also used as the final ingredient for beverage companies. The total amount of water use depends greatly on the food or beverage being prepared.

Water demand is projected to outstrip supply by 2030. Furthermore, the impact of climate change on our water supply is slowly taking form – the clearest example of which is the drought in California over the past four years – and thereby gradually provoking society to question the role that companies play (especially water-intensive ones) in guaranteeing the local water supply for communities. As such, it is in their best interests – for the sake of their own longevity – for companies to put in place a water management system that is not only transparent, but also sturdy enough to ensure their water supply for future operations, and to justify their license to operate in highly water stressed regions.

Figure 10: Proportion of Total Water Withdrawal Withdrawn for Agriculture (%)



Source: Mirova / (FAO, 2017)

We encourage companies to have a robust water management system in place, including regular water risk assessments and a strong focus on efficiency and water treatment. Furthermore, companies need to show how they are addressing water efficiency and water risks throughout their agricultural supply chain. This is especially important in water stressed regions.

KEY INDICATORS

- Percentage of operations found in high-water stress regions
- Percentage of "water thirsty" crops in regions of high-water stress
- Percentage of agricultural supply in regions of high-water stress
- Quantitative indicators on water performance

Food Loss and Waste

Globally, a third of all food is either lost or wasted from farm to fork. Food loss occurs within the agricultural supply chain and happens mainly in developing countries. To address food loss, investments need to be made in already available technologies when it comes to mechanization, transportation and packaging of produce in developing countries. Food waste, on the other hand, occurs at the consumer level and happens mainly in developed countries. For food waste, two types of change are required: first, behavioural changes in which awareness is created at the consumer level, and second, technological changes that would prolong the shelf life of foods.

Companies in this industry have a role to play by promoting the necessary investment at the supply chain level to address food losses in developing countries, encouraging anti-food waste behaviour amongst their consumers and introducing new technologies that increase the shelf-life of food (such as appropriate packaging) in developed markets.

On this subject, we ask companies to develop strategies to reduce food loss within their supply chain and food waste amongst their consumers. Additionally, we encourage companies to quantify food loss and waste, monitor their progress, and to promote these practices to other players in the industry.

KEY INDICATORS

- Presence of a Food Loss and Waste (FLW) strategy
- Quantitative indicators measuring food loss and waste, and its progress

Responsible Marketing

Responsible marketing encompasses several themes: marketing to children (particularly high sugar content products), marketing breast milk substitutes, marketing alcoholic products and honest marketing.

Marketing is a powerful tool by which companies can inform their costumers of the benefits of using their products. While common practice, it can be controversial when companies use aggressive methods to persuade consumers to use products to the detriment of their health. As such, it is the responsibility of companies to ensure that their marketing practices are responsible and truthfully depict the benefits and consequences of using their products, particularly when targeting more vulnerable groups.

We encourage responsible marketing policies that outline how a company ensures that their marketing practices portray their products in a truthful manner, without misleading their consumers.

For companies that have products with high sugar content in their portfolios, we expect a more specific policy about their true nutritional content, their advertising to children and the availability of their products in schools and nearby vicinity.

For alcohol companies, special attention is paid to the following elements of the company: 1/ a good understanding of how the company ensures responsible marketing practices beyond the legal requirements, particularly in high-risk markets (i.e. countries with low regulations, low-end price ranges, etc.) and 2/ information on detailed risk mappings concerning this issue and subsequent management plans. If the information provided on these two elements is not sufficient, then a “Risk” rating will be given.

For companies with breast milk substitutes, we expect their policy to be in line with the WHO’s Code of Marketing Breast Milk Substitutes and the WHO position recognising the superiority of breast milk.



KEY INDICATORS

- Presence of a responsible marketing policy
- Scope and coverage of the responsible marketing policy
- Performance indicators: % of marketing department employees that are trained on the responsible marketing policy, % of third-party media partners trained on the marketing policy
- Controversies

Human Resources

Companies in the food and beverage industry are big direct employers in their markets. Furthermore, most of the jobs created tend to be physically demanding, low-skilled and low-paying, thereby attracting the most vulnerable groups in any labour force. This means that companies need to put in place measures and programs in place that ensure a safe working environment and policies that protect workers' rights. Studies have shown that companies investing in their labour force can bring about operational benefits to the companies that do so. Examples of these are higher labour productivity and increased customer satisfaction. It is therefore clear that companies benefit from proper and responsible management of their human resources.

We expect companies to have a labour management policy that is, as a minimum, in line with the ILO's eight Fundamental Conventions. It should address the following issues: freedom of association and the effective recognition of the right to collective bargaining, elimination of all forms of forced and compulsory labour, effective abolition of child labour and elimination of discrimination in respect of employment and occupation. We place importance on freedom of association and collective bargaining, as this freedom is not always respected in all labour markets.

KEY INDICATORS

- Presence of a labour management policy
- Scope and coverage of labour management policy
- Performance indicators: % of global workforce that is covered by collective bargaining agreements

Business Ethics

In line with the quest for a healthier global society, increased transparency on lobbying efforts and donations to organisations and studies is highly recommended. Several controversies have arisen over the food and beverage industry funding attempts to downplay the role of sugar and overeating in the global obesity epidemic. Transparency in these areas would enable investors to have a better idea of companies' overall strategy.

Furthermore, considering that companies in this industry are global organisations, we also appreciate more transparency about their measures against bribery and corruption as well as tax optimization strategies, particularly as this is becoming a topic of concern for many governments and citizens across the world.



Beyond policies in place (business ethics, lobbying and donations, etc.), we appreciate more information as to how a company ensures that these policies are implemented throughout its value chain.

Furthermore, we encourage companies to have a transparency policy in place about their lobbying efforts, to donations made to third-party organisations, and country by country reporting on taxes in the countries where they operate.

KEY INDICATORS

- Presence of the following policies: business ethics, lobbying and donations
- On-going business ethics litigations
- Lobbying and donation report
- Ethical controversies around the company and their response
- Effective tax rate
- Tax country by country reporting

Sustainable Development Governance

In the food and beverage industry, the responsible marketing of products and their benefits is of genuine concern, particularly when it comes to the role the industry can play in a healthier society. While already detailed in the previous section, we reiterate this since marketing practices in terms of the health benefits and consequences of products are rarely state regulated. This means that the industry is highly reliant on self-regulation. Therefore, in complement to their responsible marketing policies, companies must ensure that their governance structures enable not only the enforcement of their policy, but also ensure, as a minimum, that the policy meets within international standards (where available).

It is important to have an overall understanding of how companies incorporate sustainability into their core strategy and how it is put into practice in their operations. Good governance of sustainability, with support from top management, is more likely to lead to a robust and credible sustainable strategy.

We encourage companies to have both a top-down and bottom-up approach when it comes to sustainability: we look for both support from the CEO and Chairman to effectively put into place a sustainability strategy that is in line with the company's overall strategy and for employees to be encouraged to use their creativity and experience to better integrate sustainability into their everyday working life.

KEY INDICATORS

- Management to whom the director of sustainability reports to
- Integration of extra-financial performance objectives in the annual report and variable compensation of executives
- Presence of an administrator or an advisement committee in charge of CSR

Risk Assessment

	Criteria
Positive	<p>Not be eligible for a Risk rating AND</p> <ul style="list-style-type: none"> - Evidence of robust environmental and/or social management systems that effectively address the company's environmental and social issues in the entirety of its operations and include a majority of its supply chain - Productive responses to ethical controversies with evidence towards improvement OR - Absence of ethical controversies
Neutral	All other cases
Risk	<ul style="list-style-type: none"> - Responses to repeated ethical controversies that are deemed as insufficient or inappropriate OR - Company practices that go against any of the issues outlined above OR - For alcohol companies, insufficient product/market risk assessment and responsible marketing practices and measures OR - Weak governance structure of sustainability to allow for sustainability practices to flourish

Conclusion

The food and beverage and food retail industry has an important role to play in ensuring the sustainability of the food system. One aspect of this is the health and nutritional quality of products. This can have financial benefits as governments are cracking down on the amount of sugar in food products through taxation. Companies can also find growth through third-party certifications that provide guarantees to the increasing number of conscious consumers that the products they are buying are produced, manufactured and/ or procured in a sustainable manner. Companies that provide sustainable alternatives to commonly used food products have good opportunities for further growth in today's world of changing consumer preferences. Furthermore, it is equally important to ensure that nutritious and fortified products be accessible to low-income populations where access to certain nutrients still poses concerns. Companies can also help bring populations with low incomes into the formal economy by incorporating them into different parts of their value chain. While the financial benefits of this are yet to be proven, this has been shown to provide other benefits, such as being a source for innovation and building a loyal customer base.

In terms of environmental and social risks, food safety remains the most important issue, as it can directly affect consumers – impacting upon the economic performance of the company. It is thus very important that companies ensure that their food safety mechanisms are robust and reactive to external events. Companies must also work on increasing transparency in the ingredients used in their products, such as the presence of GMOs and sugar, fat and salt content. Companies should also proactively work towards ensuring that the prophylactic use of antibiotics and the use of antibiotics as growth promoters is eliminated from livestock and fish stocks. Other major social and environmental risks can be linked to companies' supply chains: labour rights, water management, overall sustainable agricultural practices, and to a certain extent, food waste. For companies to better mitigate these risks, they must ensure close ties with their key suppliers and increase traceability within their supply chain. Investing in a sustainable supply chain also brings economic benefits for companies as it secures their access to key raw materials. In companies' direct operations, food waste, labour management and issues around responsible marketing have to be taken into consideration. Along with comprehensive policies and best practices, a stable and robust governance structure overseeing these measures is needed to ensure their effectiveness.

Levels of transparency are very important when it comes to determining the sustainability of companies. As such, even if the products of the company clearly provide opportunities for sustainable development issues, it may be that companies are not in the investible universe due to their lack of transparency on environmental and social initiatives from a risk management perspective. This is particularly the case when companies have operations in countries that are considered as being "risk" from an environmental or social perspective, due to the country's overall environment. Furthermore, a company may also be considered as not investible when their environmental and social risk management is not deemed sufficient given the level of risks they are exposed to. This is usually determined after regular discussions with companies on certain issues that pose a serious concern. When possible, discussions with the company are established before giving the company in question a "Risk" rating.



Our Approach to sustainability assessment

Acting as a responsible investor requires interpreting the economic world within its social and environmental context. This approach calls for understanding the interactions between different private-public players, small-medium-large companies, developed and developing economies to ensure that each player's growth is consistent with the balance of the rest of the system. It is a long-term approach that guarantees that today's choices will not lead to negative consequences for future generations. Understanding these complex relationships demands:

- Clear understanding of sustainable development issues facing our societies,
- Assessing the possible interactions between the assets of our investment strategies and these sustainability issues.

The SDGs as a Guide

Following the Millennium Development Goals created in 2000, the United Nations set out a new framework for sustainable development in 2015. It contains 17 Sustainable Development Goals (SDGs), broken down into 169 specific targets designed to address the main social and environmental issues between 2015 and 2030. In addition to having been adopted by all members of the United Nations, the SDGs offer several advantages.

First, they establish a comprehensive framework concerning environmental and social issues, applicable to all economies regardless of their level of development. Thus, while some issues such as ending hunger or ensuring access to water for all are often more relevant for low- and middle-income countries, other objectives such as fighting climate change or making cities safe, resilient and sustainable, are applicable at all levels of development.

Moreover, the SDGs can be considered as a frame of reference for sustainable development issues for a variety of actors, from governments to companies and investors. The private sphere is increasingly considering environmental and social issues, illustrating new forms of governance where subjects of general interest are no longer solely the prerogative of the public sphere. Considering the SDGs can help companies to think on how they create environmental, economic, and social value.

Finally, the SDGs help investors to question the long-term resilience of their assets and portfolios to the ongoing transformations. Then, investors can go even further by looking at their exposure to new solutions and economic models that will respond to long-term economic transformations. For example, the targets associated with the SDGs to significantly increase the share of renewable energy and to double energy efficiency by 2030 imply a profound transformation within the energy sector.

We consider the SDGs squarely in line with our mission. As a result, in 2016, Mirova decided to use this framework to define its responsible investment approach.



Figure 11: The 17 Sustainable Development Goals

	End poverty in all its forms everywhere		Reduce inequalities within and among countries
	End hunger, achieve food security and improved nutrition and promote sustainable agriculture		Make cities and human settlements inclusive, safe, resilient and sustainable
	Ensure healthy lives and promote well-being for all at all ages		Ensure sustainable consumption and production patterns
	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all		Take urgent measures to combat climate change and its impacts
	Achieve gender equality and empower all women and girls		Conserve and sustainably use the oceans, seas and marine resources for sustainable development
	Ensure availability and sustainable management of water and sanitation for all		Protect, restore and promote sustainable use of territorial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
	Ensure access to affordable, reliable, sustainable and modern energy for all		Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all		Strengthen the means of implementation and revitalize the global partnership for sustainable development
	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation		

Source: United Nations

Assessing Environmental and Social Quality by the SDGs

We believe that the SDGs will transform the economy as we know it. Acting as a responsible investor starts with taking a broader view of the way investors think about the environmental and social profile of the assets they finance. These interactions can be grouped into two categories:

- **Materiality:** how the current transitions are likely to affect the economic models of the assets financed either positively or negatively.
- **Impact:** how investors can play a role in the emergence of a more sustainable economy



We believe that these two approaches are closely linked. Our evaluation methodology thus seeks to capture the extent to which each asset contributes to the SDGs. From our perspective, this approach provides a relevant vision on both the "Materiality" and "Impact" aspects.

A Five-level Qualitative Analysis

Mirova has based its environmental and social evaluation method on four principles:

A RISK/OPPORTUNITY APPROACH

Achieving the SDGs requires taking two different dimensions into account that often go together.

- **Capturing opportunities:** when companies center their strategies on innovative business models and technologies focused on technological and societal transformation, they can often capture opportunities related to the SDGs.
- **Managing risks:** by proactively managing risks related to these transitions, companies can reduce and re-internalize their social and environmental externalities, which often takes the form of general management of sustainability issues.

This analysis structure gives equal importance to opportunities and risks. It is the first prism through which we analyze sustainable development issues.

A LIFE-CYCLE VISION

To identify the issues that could impact an asset, the analysis of environmental and social issues must consider the entire life cycle of products and services, from raw material extraction to end-of-life phase.

TARGETED AND DIFFERENTIATED ISSUES

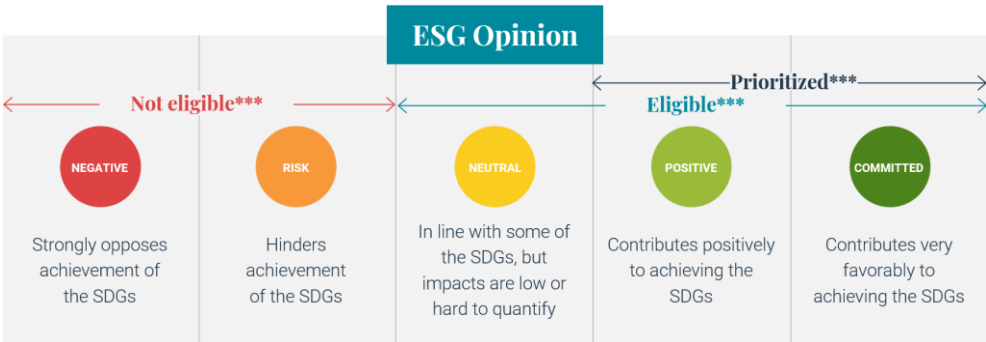
Our risk/opportunity analysis focuses on the elements most likely to have a real impact on the assets studied and on society in general. Additionally, the issues that economic players face

are very different depending on the sector, and can even vary within the same sector⁹. For example, it is important for us to focus on work conditions for suppliers in the textile industry, while for automobile manufacturers, the focus will be more on energy consumption during product use.

So, our analysis focuses on a limited number of issues adapted to the specificities of each asset.

A QUALITATIVE RATING SCALE

Our analyses are summarized through an overall qualitative opinion on five levels. This opinion assesses to what extent an asset contributes to the SDGs.



***10

This rating scale is based on the SDGs and their achievement. As a result, opinions are not assigned based on a distribution set in advance: we are not grading on a curve overall or by sector. Mirova does not exclude any industry on principle, and carries out a thorough analysis of the environmental and social impacts of any asset. For some sectors, this analysis may lead to the exclusion of all or some of its actors. For example, companies involved in fossil fuel extraction are considered "Risk" at best, while renewable energy companies are generally well rated.

An indicative grid provides some overall guidelines regarding the links between opportunities, risks and the overall sustainability opinion.

Sustainability Risks Review	Positive	Risk	Positive	Positive / Committed	Committed
	Neutral	Negative / Risk	Neutral	Neutral / Positive	Positive / Committed
	Risk	Negative	Negative / Risk	Risk	Risk
		Negative	Low or no	Significant	High
Sustainability Opportunities Exposure					

⁹ For every sector, defining key issues is the subject of a specific study. This document is available on Mirova *website*. <https://www.mirova.com/fr/recherche/comprendre#vision>

¹⁰ *** For Mirova's investments



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Non-contractual document written in January 2018 by Francesca Suarez.



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