

Consumption: Home and Personal Care

Sustainable Development Sector Analysis Framework

December 2019



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: Personal products,
household products

For companies in these sectors, there is a growing demand from consumers for products they know to be safe and sustainable. As such, there are opportunities for companies to respond to this demand. However, they face certain barriers. One is that there is no widely-accepted definition of what makes a product sustainable. Sustainable certifications have increasingly been helpful in directing companies where to focus their investments and efforts. Additionally, these certifications can have a positive effect on consumer choice. Another aspect of opportunity is through inclusive business models, i.e. providing products to cater to the basic needs in health and hygiene of low income populations. More than affordability, it also includes increasing awareness. In terms of risk, product safety is not only a social risk but also poses a significant financial risk as consumers readily change their preferences when certain ingredients are no longer deemed safe. Furthermore, the list of “bad” ingredients enlarges faster than the list of “better” ingredients that they could be substituted with. There’s also been an increasing awareness towards the use of plastic packaging in their products and should thus be addressed by the company. Other risks are linked to water and waste management and the sustainable sourcing of raw materials.



Table of contents

Sustainability Opportunities	4
Sustainably Certified Products.....	4
Inclusive Business Models	5
<i>Exposure to Opportunities</i>	5
Environmental and Social Risk	6
Product Safety	6
Sustainable Raw Material Sourcing.....	7
Environmental Management.....	10
Human Resources	11
Business Ethics	12
Sustainable Development Governance	12
<i>Risk Assessment</i>	13
Conclusion	14
Our Approach to sustainability assessment	15
Sources	19



Sustainability Opportunities

Sustainably Certified Products

Today's consumers are becoming more aware of the products they are buying and the effects these products have on their health and on the environment. Consumer surveys state that more consumers are basing their purchasing decisions on these inclinations. Furthermore, companies can decrease their environmental footprint by encouraging their consumers to use their products in a sustainable manner or by ensuring that their products promote sustainability in their use. For example, companies in the industry have estimated that roughly 85% of their water footprint comes from the consumers' use of their products. As such, companies offering products that would allow consumers to use less water not only helps improve the companies' water footprint, but also encourages the consumers to lead more sustainable lifestyles.

Companies can appeal to the conscious consumer by developing products that help and encourage a more sustainable way of living. This could be in products that require less water during use, have ingredients that are significantly more environmentally friendly (e.g. biodegradable ingredients) and socially acceptable (e.g. more nature-derived ingredients), are assured cruelty-free (i.e. absolutely no animal testing), etc. Additionally, certain products could require a change in behaviour in order for them to have the intended environmental benefits. As such, companies would also need to increase awareness amongst their consumer base as to how using their products could help them have a more sustainable lifestyle.

Consumer confidence in companies' claims on their products is low. As such, companies need to find ways to give their consumers the assurance that their products are in fact, what they claim to them to be. Furthermore, due to lack of a clear and universally accepted definition, certain terms may easily be misleading and/or misunderstood. For example, the word "natural" has a very good connotation as people associate it with ingredients such as shea butter, argan oil, etc. However, there is no legal definition for natural when it comes to labelling on packaging, and as such this term could actually not have much meaning (other natural, less positive, elements are also coal and lead). As such, it is very important for companies to communicate and educate the consumer base about the benefits of their products.

One aspect is through a clear commitment and full transparency. Companies need to be transparent and honest on their goals, initiatives and progress. Companies can go even further by adhering to third-party certifications. These certifications provide both companies and consumers with a clear definition of terms and set standards to which companies should adhere. Third-party certifications vary depending on the underlying theme, but all of them have minimal social and environmental standards that must be respected. What usually changes is where the focus of these standards lies (e.g. social certifications, such as the Fair Trade certification, would have a stronger focus on the social aspects of the supply chain).

Finally, companies have much to do when it comes to educating the public as to how slight changes in the use of their products can help them have more sustainable lifestyles.

We see third-party certifications as a good indicator of a commitment to sustainability and to transparency. We therefore look for companies that are certified for their environmental and social practices beyond local legal requirements. We also see a sustainability opportunity in educating consumers on the most environmentally sound way of using a company's products.

KEY INDICATORS

- % of products with a third-party sustainably sourced certification
- % of marketing budget dedicated to increasing consumer awareness of living more sustainable lifestyles



Inclusive Business Models

Addressing social challenges does not always need to be a philanthropy-related activity. Some businesses have found economically viable business models that have addressed social needs; the most successful of these is the money transferring service through mobile phones in developing markets. For the HPC sector, this would pertain more to addressing the health and hygiene needs of low-income populations. However, it is not enough to just make these products available. As some of the targeted consumers may have never encountered these products in the past, it is also necessary to educate would-be users on the purpose and proper use of these products.

HPC companies can cater to these needs not only by making them more affordable but also by innovating so their products can better cater to behaviours and environments that are specific to low-income populations. Furthermore, this will only be considered an inclusive business model if it is accompanied by a commitment to increase consumer awareness with regard to good hygiene practices. This can be done through the company's own marketing campaign or through partnerships with non-profits that specialize in the area.

Companies that provide affordable and innovative hygiene-related products to low-income populations through innovative inclusive business models (a.k.a. bottom of the pyramid (BOP) programs) would ideally fit this investment case. We are attentive to the share of a company's products and revenues that are geared towards or derived from low-income populations. Furthermore, companies must also attend to changing consumer behaviours towards better hygiene practices.

KEY INDICATORS

- Inclusive business model in the company's strategy, especially in developing markets
- % of products that are for basic hygiene and catering to BOP
- % of revenues coming from this initiative
- Initiatives to cater to changing consumer behaviour and increasing consumer awareness

Exposure to Opportunities

Indicators considered :		
	- % of products with a third-party sustainably sourced certification - % of revenues coming from inclusive business models	
High exposure	>50%	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	No companies are currently rated at this level.	



Environmental and Social Risk

Product Safety

As mentioned in the introduction, product safety is not only a social risk but a financial one as well. Increasingly aware of their health, consumers react quickly when they believe certain ingredients to be dangerous. Additionally, the rise of the internet has increased the consumers' ability to reformulate products. Examples of this are the reformulation of Johnson & Johnson's iconic baby shampoo to no longer contain formaldehyde after two years of consumer concerns and Colgate-Palmolive citing "changing consumer preferences" as the reason behind the removal of triclosan in its soap products. However, it is important to know that what the consumer believes to be dangerous or unhealthy is not always the case. An example of such is parabens, one of the most cited controversial ingredients. Since a 2004 study released that parabens had a link to breast cancer (PD & A, 2004), it has been a major concern for many consumers and as such pushed certain brands to remove it from its formula. However, many studies following the initial one have refuted the claim; NGOs for increasing consumer health awareness (GoodGuide and EWG's SkinDeep) have categorized the ingredient as a low health concern and companies consider that parabens are still safer compared to their known alternatives. Nevertheless, consumers are still on high alert whenever parabens are concerned and have as such been banned in the EU. This phenomenon has then put brands in a difficult position where the list of publicly accepted ingredients, particularly preservatives, is shortening faster than companies can find safe alternatives.

Adding further complexity to the safety debate is that regulations vary greatly from one geographical location to the other. The European Union has the strictest regulations due to their fairly strict application of the precautionary principle. While in the United States, after years of self-regulation, they have introduced the Safe Cosmetic and Personal Product Act of 2018 that calls for full disclosure of all ingredients in personal care products and bans toxic ingredients. Because of the differing levels of regulation in this area, it cannot be considered as a driving force for ensuring safe products in all markets; safety, therefore, still greatly relies on self-regulation and the willingness of companies to follow the strictest of regulations even when not required. For example, GoodGuide, a not-for-profit that aims to increase consumer awareness on the social and environmental impacts of consumer goods, classifies the following ingredients that are of high health concern: DEA, formaldehyde or formaldehyde donors, lead, synthetic colours or coal tar and triclosan. Of these ingredients, coal tar, lead and DEA in cosmetics are banned in the EU and Canada; formaldehyde and triclosan are allowed in the EU in restricted quantities. In the USA, most of these ingredients are still allowed with the exception of lead in eyeliner.

Companies can address this risk in several ways. First, by increasing transparency and fully disclosing on the ingredients found in their products. They can also share the current findings they have on the level of danger certain ingredients can pose to their consumers and provide credible & independent third-party sources for these claims so that consumers are better informed when making purchase decisions. Additionally, companies would also have to dedicate more resources into R&D to continuously find safer alternatives to controversial ingredients with scientifically proven negative consequences on human health. Finally, companies should have in place a robust supply chain management that allows them to easily trace the origins of the different ingredients of their products and as well to ensure that the quality of the ingredients being used.



Box 1: Animal Testing

Animal testing in the HPC sector is no longer a common practice. This is due to a mixture of several factors: vigorous campaigns by animal rights activists, strong public backlash, increasing availability of alternative testing methods and the banning of the practice in certain major markets (European Union, Norway, Israel, India, and New Zealand). However, not all markets have banned the use of animal testing and some actually require it. China, a major market for western cosmetics companies, is an example of a country that requires imported products to be tested on animals before their sale in the market. Consequently, most major HPC companies have committed to not test their products on animals and will only do so should it be stipulated by legal regulations or accepted alternative test methods obtaining the necessary safety data are not available. Nevertheless, proven incidences of animal testing in markets where they are not legally required and where alternative methods with the necessary safety data are available will be investigated.

We ask companies in this sector for good and robust product safety policies that aim to increase transparency on the ingredients used in their products. Companies should also be able to provide consumers with scientifically proven facts about the effects on health of controversial ingredients. Additionally, while adulteration is not frequent in the sector, it is important to have robust supply chain management with effective traceability mechanisms and responsive product recall procedures. Suppliers should also be chosen based on their adherence to the company's product safety policy. Finally, the company should be able to show how many of their R&D projects are aimed at safer alternatives to controversial ingredients.

KEY INDICATORS

- % of products where full list of ingredients can easily be found online or on product packaging
- Number of controversial ingredients still found in products' formulae
- % of R&D dedicated to finding safer alternatives for proven controversial ingredients

Sustainable Raw Material Sourcing

HPC products are made of a mixture of renewable raw materials / bio-based ingredients (e.g. agricultural raw materials) and inorganic materials (e.g. mineral-oil based ingredients). Historically, personal care products like soap were made from vegetable or animal oils and fats. However, today in the age of industrialization, this is less the case. Most bulk ingredients found in detergents and household cleaners and cosmetics are inorganic and mineral-oil based (i.e. derived from petrol).

One of the stakes for the companies today is to reformulate their products such that they contain more renewable raw materials and/or bio-based ingredients as a large amount of ingredients used are petrol-based. While not all inorganic ingredients can easily be replaced with renewable ones, there are already several that can be. Furthermore, continuous developments in technology should allow for the creation and/or discovery of more renewable raw materials in the future. One example is through biotechnology, companies have been able to create plant-based ingredients such as squalene from sugar cane, anti-agers from microalgae oil and butylene glycol from plant sugars. Nevertheless, an ingredient considered to be a renewable raw material is not automatically considered sustainable. This particularly applies to agricultural raw materials where certain environmental and social impacts can be found such as deforestation and below living wages for farmers. The most common and



probably most controversial agricultural raw material is palm oil. Other common agricultural raw materials in this industry are paper and board, used mainly for the product packaging.

Based on a life cycle analysis, companies estimate that around 15% of their water footprint comes from the water used in the agricultural raw materials. Furthermore, the harvesting of agricultural products is directly linked to deforestation. This is more so the case for palm oil, as areas of valuable rainforests are still being cut down in order to make way for palm oil plantations. Additionally, the social impacts of agricultural raw materials are significant. Child and forced labour and exploitation of farm workers are still frequently found in the industry. While the farms are not usually directly owned and/or operated by these companies, they can still have a role to play in promoting sustainable agriculture by encouraging, even requiring, that farmers and other third parties from whom they buy their raw materials uphold sustainable agricultural practices (e.g. water efficient irrigation techniques, strict rules with regards to land use, safe working conditions and proper remuneration of farmers).

The choice of material for packaging is equally an important issue as these packagings are often disposed of after use. The use of plastics in packaging is of particular issue as plastics are not biodegradable and as such threaten animal and plant life when not disposed of properly. The issue of plastic is further discussed in Box 2 below. As a general rule, companies can address this issue by prioritizing the use of packaging material that are recycled and compostable. Recyclable material can also be encouraged however it would highly depend on the collection and recycling facilities of the municipalities and is thus more difficult to oversee. For example, in most of Europe glass and aluminum packaging materials are well recycled however the rate of the recycling plastic and the types of plastic recycled differs per country and even, municipality. We see companies starting to partner with waste management utilities in an effort to better recycle their packaging in certain areas such as in the US. However, these efforts are still minimal and do not directly address the problem.

Box 2: Plastic in Packaging

Plastics is a versatile and durable material. These and its lightweight make it the preferred material for packaging. Other favourable aspects of plastic are that its shatter resistant, hygienic and secure. Plastics can either be fossil-based or bio-based (i.e. derived from plants). There are different types of plastics for different uses. The type of plastic often found in the HPC industry are thermoplastics (plastics that soften on heating and harden again on cooling). The most commonly used is polyethylene terephthalate (PET).

While in theory plastics can be recycled, this is often not the case. For example, in 2017 only 8% of the plastic waste generated was recycled in the United States; 16% was combusted for energy recovery and the remaining 76% was sent to landfill (EPA, 2019). On a global scale, an estimated 8 million metric tons of plastic are thrown into the ocean annually (Jambeck, 2015). The length of decomposition of plastic waste depends on landfill conditions and can thus take between 10 to 1,000 years before a plastic bag is fully decomposed leading estimations to expect that by 2050, there'll be more plastic in the ocean by weight than there are fish (Ellen McArthur Foundation, 2017). Furthermore, while plastic waste is a global issue, how this issue is addressed is handled at a local level. How and what type of plastics are recycled are very much dependent on the collection resources and recycling facilities at the municipality level and thus vary greatly per country and even within countries.

As the organisation who decides on what kind of material to use for their packaging, companies play an important role in reducing plastic waste by choosing and finding more sustainable sources of packaging material. One option would be to eliminate packaging altogether (such as developing products that would need less packaging, for example solid shampoos, soaps,

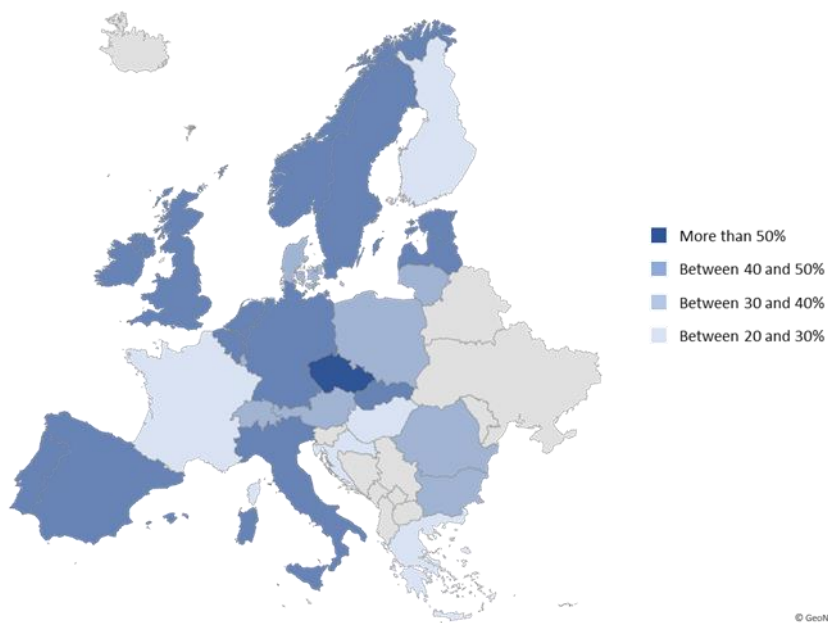


etc.). Another would be to encourage consumers to use reusable containers. We already see some pilot programs on business models that would allow their consumers to use reusable containers for certain products and offer a separate recycling stream for materials that can't be reused (e.g. disposable diapers). These solutions, however, are more for highly advanced companies and consumers and cannot be easily adapted by the vast majority. A more mainstream solution is encouraging consumers to come back with their empty packaging to the stores to ensure that they will be put into the proper recycling stream. The vast majority of companies, however, are focusing more of their energy to ensure that 100% of their packaging are reusable, compostable or recyclable. Several have signed up to the Ellen McArthur Foundation led "New Plastics Economy" commitment to do so by 2025. In addition to this commitment, we would encourage to increase the number of packaging that comes from already recycled content.

Interesting alternatives have begun to appear with primarily biodegradable or bio-sourced plastics that are made from extracting sugars from plants (e.g. corn, sugarcane). However, as this can go in direct competition with food sources as it can take up arable land needed to produce food crops, caution must be practiced when exploring this technology. A better alternative would be from waste sources, however the technology doesn't exist yet. Furthermore, more work will need to be done on how to make the packaging compostable and that it does no harm to the environment during the compost phase.

Additionally, to fully eliminate plastic waste, companies need to be joined in by local authorities, governments and consumers. Local authorities would need to scale up their plastic collection and recycling capabilities. Governments would need to promote policies that reduce the use of harmful materials in packaging and support research into more sustainable packaging materials. Consumers would have to be better at sorting their waste and change certain behaviours so as to produce less waste.

Figure 1: Plastic Recycling Rates in European Countries



Source: Mirova, *PlasticsEurope*, 2018



We expect companies in this sector to invest in R&D in the formulation of their products in order to use a bigger proportion of ingredients and materials that are renewable and safe. Furthermore, we expect them to have in place a sustainable agriculture policy for their renewable and agricultural raw materials that includes a zero deforestation policy and takes into consideration the most important environmental and social issues based on their crop exposure base. We also expect initiatives throughout the supply chain to ensure that this policy is well implemented, namely through the disclosure of the methodology used to measure the level of supplier conformity. In addition, we encourage companies to integrate the quality of the sustainable practices implemented as a criteria for supplier selection. Finally, the company should commit to making 100% of their packaging to be recycled, reusable, compostable and/or recyclable.

KEY INDICATORS

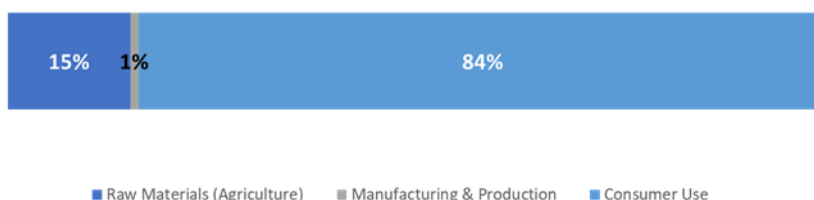
- % of renewable raw ingredient in overall product portfolio
- Sustainable agriculture and/or sourcing policies
- Measures in place to assure that suppliers conform to the policy
- Inclusion of sustainable agricultural practices into the supplier decision making process
- % of traceability of agricultural raw materials to the farm
- % of packaging that is from recycled content
- % of packaging that is recyclable
- % of packaging that is compostable
- Performance indicators (e.g. supplier ratings, % of purchases from suppliers with high sustainability ratings)

Environmental Management

Compared to that of other industries, the environmental impacts of HPC companies are not as studied, and as such their aggregate impact on the environment is not known. Nevertheless, with water supply gradually becoming sparse in more regions and increasing resource scarcity becoming more of an issue, their impacts are not negligible and thus, must not be overlooked.

The industries' main impact is on the water used for their agricultural raw materials, in the manufacturing of their products, as a main ingredient in their liquid products (roughly between 65-90% of its composition) and finally through their consumers when they use the products. The biggest impact is actually when their end consumers use their products, thereby highlighting the importance of providing products that would use less water compared to the average. Nevertheless, companies can equally reduce their water impact by using less water and/or increasing the use of recycled water in the manufacturing stages, especially in facilities located in areas with high water stress, and by finding formulas that would require less water compared to the original formulas.

Figure 2: Sample Water Footprint of an HPC Company



Source: Mirova, Company Report 2012



We expect companies to have in place an environmental management system that drives the company’s environmental strategy. In line with that, we encourage companies to implement a manufacturing process that is eco-efficient – minimizes water use and waste production. Furthermore, for companies that outsource a part of their production, we would expect that they have in place the same environmental standards as in their own operations. Finally, we expect companies to publish the eco-efficiency indicators of their operations.

KEY INDICATORS

- Water and waste policy and management system
- Coverage of the policy and management system in own operations and amongst suppliers
- Percentage of operations found in high-water stress regions
- % of water recycled
- % of waste recycled
- Evolution of performance indicators (e.g. water withdrawn, water recycled, waste recycled)

Human Resources

While HPC companies are not usually big employers in their home markets, a responsible human resources management is still important for such a company. Their employees can either be found in their offices or in their production sites. For the production sites, it is important to have a special focus on maintaining a high level of workplace safety and eliminate workplace accidents. In addition to the respect of basic working rights, responsible human resources is also about being inclusive and increasing diversity particular among women and other minorities. Policies and initiatives on diversity are expected to ensure that the workplace is welcome to all.

We expect companies to have a labour management policy that is at least in line with the International Labour Organisation’s 8 Fundamental Conventions addressing the following underlying 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 give a particular importance to the freedom of association and collective bargaining as this freedom is not always respected in several labour markets. We also expect companies to have an inclusive diversity policy to allow minorities such as women enter and flourish in their working environment.

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
- Absenteeism rate
- Employee turnover
- Gender pay gap



Business Ethics

While companies in these sectors are not the most exposed or the most likely to be found engaging in controversial practices from a business ethics point of view, there have been certain controversies in the area around price collusion. As such, it is still important that companies be transparent with regard to their lobbying practices and anti-corruption, anti-competitive and bribery policies and initiatives.

Furthermore, considering that companies in this industry are global organisations, we would also appreciate more transparency with regard to their tax optimization strategy.

Beyond having the necessary policies in place (business ethics, lobbying and donations, etc.), we would appreciate more information as to how the company ensures that these policies are implemented throughout the entirety of its operations.

Furthermore, we encourage companies to have in place a transparency policy with regard to their lobbying efforts, donations made to third-party organisations, and country-by-country reporting on taxes in operating countries.

KEY INDICATORS

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

Sustainable Development Governance

As a whole, it is important to understand how the company integrates sustainability into its core strategy and how it is implemented in its operations. The good governance of sustainability, with support from top management, is more likely to have a sustainable strategy that is credible and robust.

We encourage companies to have both a top-down and bottom-up approach when it comes to sustainability: top-down in the sense that there is 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 bottom-up where employees are encouraged to use their creativity and experience into better integrating sustainability into their everyday working life.

KEY INDICATORS

- Management to whom the director of sustainability reports to
- Presence of sustainability targets into the variable compensation of the executive committee
- Presence of an externally audited and certified sustainability report



Risk Assessment

Criteria	
Positive	<p>Not be eligible for a Risk rating AND</p> <ul style="list-style-type: none">- Productive responses to ethical controversies with evidence towards improvement OR- Absence of ethical controversies OR- 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
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 and/or environment that go against any of the issues outlined above OR- Weak governance structure of sustainability to allow for sustainability practices to flourish with frequent controversies in the area



Conclusion

While the home and personal care industry has a role to play in making this world a more sustainable place, its role is less clear and defined compared to that of other industries due to the lack of agreed-upon criteria leading to a universally accepted definition of what makes a product sustainable. Nevertheless, companies can use this as an opportunity by taking the lead in defining the sustainable HPC market. Companies can do this mainly by offering products with less negative environmental and social impacts than their counterparts'. This can be done by increasing the use of renewable and biodegradable ingredients, complete transparency over the ingredient supply chain, decreasing the amount of water needed during use, paying farmers fairer wages, etc. Companies can also find growth through third-party certifications in their products whereby an increasing number of concerned consumers can ensure that the products they buy are produced, manufactured and/ or procured in a sustainable manner and/or have less environmental impacts throughout their use. Furthermore, companies would need to accompany this movement with communication that would increase their consumers' awareness on how they could lead more sustainable lives through the use and choice of their products. Additionally, hygiene products can have significant impacts in locations where access to them was previously restricted. As such, companies can both respond to a sustainable development issue and earn economic gains by addressing these needs.

Product safety is the major potential risk in this sector since it can have direct consequences on consumers' health, and consequently impact the economic performance of the company. Companies need to fully disclose the ingredients in their products to consumers and should invest the necessary R&D to phase out clearly dangerous ingredients and replace them with proven safer choices. Furthermore, companies need to find ways to better inform their consumers on which ingredients are considered safe. Companies also have a role to play in ensuring that the raw materials they use for the products and packaging are sustainable and sourced sustainably. They can also decrease their environmental impact, by increasing the water efficiency and waste reduction of their manufacturing processes. Along with comprehensive policies and best practices, a stable and robust governance structure overlooking these sustainability measures is needed to ensure their effectiveness.

The level of transparency is very important when it comes to determining the sustainability of the company. As such, even if the products of the company provide opportunities for sustainable development issues, a company can be excluded from the investable universe due to the lack of transparency of their environmental and social risk management. This can happen particularly when companies have frequent controversies in operations in countries that are considered at risk from an environmental or social perspective due to the country's overall regulation framework. Furthermore, a company can be considered not investible if its environmental and social risk management is not deemed sufficient considering their risk exposure. This is usually determined after regular discussions with companies on certain issues that pose serious concerns. If after multiple discussions with the company, the practices in place are not considered sufficient with regard to the risks at hand, then the company can be rated as not investible from an ESG standpoint. When possible, discussion with the company is established before giving the company 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 3: 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

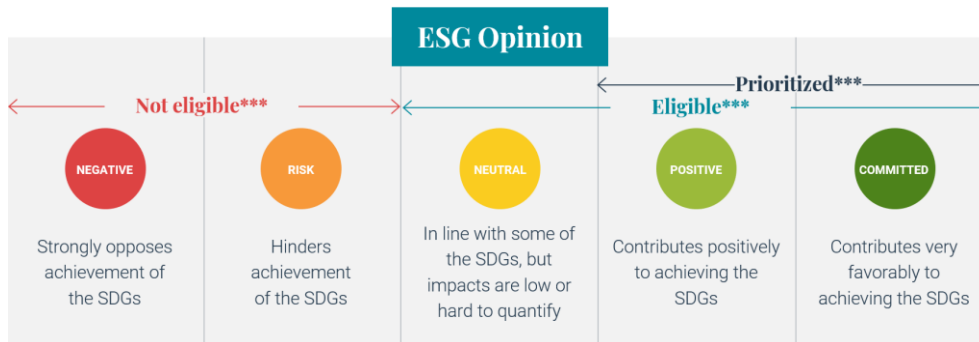


are very different depending on the sector, and can even vary within the same sector¹. For example, it is important for us to focus on work conditions for suppliers in the textile industry, while for automobile manufacturers, the focus will be more on energy consumption during product use.

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.



***2

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

¹ 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>

² *** For Mirova's investments



Sources

Cosmetics Europe. (2018). Environmental Sustainability. Brussels: Cosmetics Europe.

EEA. (2019, Nov 28). Recycling Rates in Europe. Récupéré sur European Environment Agency: https://www.eea.europa.eu/about-us/competitions/waste-smart-competition/recycling-rates-in-europe/image_view_fullscreen

Ellen McArthur Foundation. (2017). The New Plastics Economy. Barcelona: Ellen McArthur Foundation.

EPA. (2019, Nov 28). Plastics: Material-Specific Data. Récupéré sur United States Environmental Protection Agency: <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/plastics-material-specific-data>

Jambeck, J. (2015). Plastic Waste Inputs from Land into the Ocean. *Science*, 768-771.

Milman, O. (2019, May 22). US cosmetics are full of chemicals banned by Europe – why? *The Guardian*.

Nescaum. (2011). Control Technologies to Reduce Conventional and Hazardous Air Pollutants from Coal-Fired Power Plants. Boston: Andover Technology Partners.

PD, D., & A, A. (2004). Concentrations of parabens in human breast tumours. John Wiley & Sons, Ltd.

PlasticsEurope. (2018). Plastics - The Facts 2018. Wemmel.



DISCLAIMERS

This document is a non-contractual document for information purposes only. This document does not constitute, or form part of any offer, or solicitation, or recommendation to buy, or concede, or subscribe for any shares issued or to be issued by the funds managed by Mirova investment management company. The presented services do not take into account any investment objective, financial situation or specific need of a particular recipient. Mirova shall not be held liable for any financial loss or for any decision taken on the basis of the information contained in this document, and shall not provide any consulting service, notably in the area of investment services.

The information contained in this document is based on present circumstances, intentions and guidelines, and may require subsequent modifications. Although Mirova has taken all reasonable precautions to verify that the information contained in this document comes from reliable sources, a significant amount of this information comes from publicly available sources and/or has been provided or prepared by third parties. Mirova bears no responsibility for the descriptions and summaries contained in this document. No reliance may be placed for any purpose whatsoever on the validity, accuracy, durability or completeness of the information or opinion contained in this document, or any other information provided in relation to the Fund. Recipients should also note that this document contains forward-looking information, issued on the date of this presentation. Mirova makes no commitment to update or revise any forward-looking information, whether due to new information, future events or to any other reason. Mirova reserves the right to modify or remove this information at any time without notice.

The information contained in this document is the property of Mirova. The distribution, possession or delivery of this document in some jurisdictions may be limited or prohibited by law. Each Recipient must ensure he complies with these requirements and prohibitions.

Non-contractual document written in December 2019 by Francesca Suarez.



MIROVA

French Public Limited liability company with board of Directors
Regulated by AMF under n°GP 02-014
RCS Paris n°394 648 216
Registered Office: 59, Avenue Pierre Mendes France – 75013 – Paris
Mirova is a subsidiary of Ostrum Asset Management.

NATIXIS INVESTMENT MANAGERS

French Public Limited liability company RCS Paris n°453 952 681 Registered Office:
43, Avenue Pierre Mendes France – 75013 – Paris Natixis Investment Managers is a
subsidiary of Natixis.

NATIXIS INVESTMENT MANAGERS INTERNATIONAL

French Public Limited liability company Regulated by AMF under n° GP 90-009 RCS
Paris n°329 450 738 Registered Office: 43, Avenue Pierre Mendes France – 75013 –
Paris Natixis Investment Managers International is an affiliate of Natixis Investment
Managers.

MIROVA U.S., LLC

888 Boylston Street, Boston, MA 02199; Tel: 212-632-2803 Mirova U.S, LLC (Mirova
US) is a U.S. - based investment advisor that is wholly owned by Mirova. Mirova is
operated in the U.S. through Mirova US. Mirova US and Mirova entered into an
agreement whereby Mirova provides Mirova US investment and research expertise,
which Mirova US then combines with its own expertise, and services when providing
advice to clients.

An affiliate of: