Firmenich

AN OVERVIEW OF OUR MATERIALITY PROCESS

INTRODUCTION

Since signing the International Chamber of Commerce Business Charter for Sustainable Development in 1991, Firmenich's commitment to corporate and environmental responsibility has remained unwavering. We strive to drive both our business, and industry as a whole towards, more sustainable practices.

Firmenich is currently in the process of updating its Pathways to Positive strategy to ensure closer alignment between the business and its sustainability ambitions. As part of this, we have conducted the periodic review of our materiality assessment this year.

WHAT IS A MATERIALITY ASSESSMENT?

A materiality assessment is a process to identify the most important sustainability issues, opportunities and risks for our business through two lenses: the importance of these issues to our stakeholders and their impact on our business. The output is a materiality matrix, showing all the issues material to our business and their prioritization in relation to each other.

WHY DOES IT MATTER?

Materiality is a process undertaken by every organization with a serious commitment to sustainability, including our biggest customers and peers. It's also required by our sustainability report assurors.

But for us, it's about more than compliance and keeping up with our peers. The data and insights gathered through the materiality assessment process are invaluable to help inform the direction of travel for our business, and what this means for our strategy, targets, KPIs, and communications with different stakeholders.

Our materiality assessment will also provide invaluable inputs for our ongoing risk management processes.

WHY NOW?

Firmenich has a broad range of stakeholders and an extensive value chain, which makes for a dynamic and complex business. Tied to this, the world we operate in is constantly changing. More legislation aligned to the sustainability agenda is emerging, the SDGs are reframing how stakeholders tackle sustainability, and interest in sustainability from wider society has never been higher.

To keep pace with this evolving context and to align to best practice, we strive to conduct a materiality assessment every three to five years, with annual updates in between. Our last materiality assessment took place in 2014. In light of our plans to update our Pathways to Positive strategy, 2018 was the right time to refresh our materiality assessment.

THE MATERIALITY PROCESS

Firmenich's materiality process involved five stages:
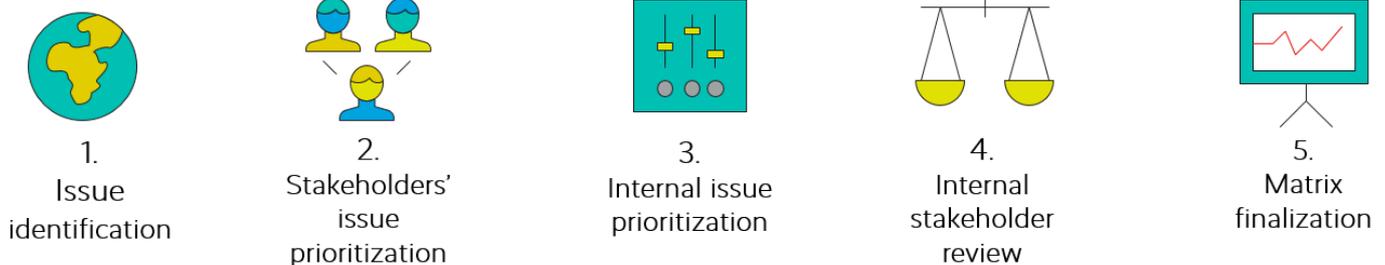
1. Issue identification

We conducted an extensive horizon scanning exercise to determine a 'long-list' of issues. The horizon scanning exercise included an assessment of sustainability issues previously included in our 2014 materiality matrix, issues discussed in our internal and external communications, and those identified as material from a review of our peers and customers. We also undertook a media scan to identify key issues raised in the last 12 months, as well as a review of relevant legislation, reporting standards and frameworks; including the Global Reporting Initiative (GRI), the United Nationals Sustainable Development Goals (SDGs), internal policies such as our Human Rights Policy Statement, and our internal risk processes.

We then condensed and refined the 'long-list' by identifying and removing overlapping issues, before writing a clear definition for each. The definitions captured the nuances associated with the issues, as well as relevant sub-issues.

We categorized the issues in the refined long-list into the three pillars of Firmenich's Pathways to Positive strategy: Amplifying Governance, Accelerating Growth and Fast-tracking Green.

Lastly, we shared the refined long-list with Firmenich's Head of Communications and Head of Risk to gain feedback from these highly relevant departments from the outset of the process, and, based on their feedback, adjusted the long-list of issues accordingly.

2. Stakeholder issue prioritization

This stage involved interviewing a range of key stakeholders, including Firmenich's customers, NGOs and partners, to prioritize the importance of each issue on a scale from very low to very high.

We also asked our stakeholders for feedback on the language and terminology used for each issue, the categorization of the issues, any issues they felt were missing from the list, and whether they considered any of the issues to be 'emerging'.

A simpler version of this process was then conducted with a larger number of stakeholders via an online survey. In this year's materiality assessment process, 93 stakeholders responded to the survey: 62 employees from different regions, markets and business units, 5 suppliers, 10 customers, 3 NGO partners, 4 academic partners and 9 in the 'other' category.

We analyzed the insights and feedback from the interviews and survey responses to prioritize each issue in terms of their importance to stakeholders. As part of our analysis, we also adjusted the terminology used and the issue definitions where required.

3. Internal issue prioritization

This stage involved determining the impact of each issue on our business. We assessed each issue using our prioritization criteria, which considered factors such as possible financial and reputational impact, likely magnitude, and any legal implications associated with non-compliance.

Using the issue prioritization from our stakeholders' perspective, and the impact on our own business assessment, we developed a first draft of the materiality matrix.

4. Internal stakeholder review

Sustainability affects our entire business. It was therefore important to engage senior leaders from multiple divisions and business units in the materiality process.

We interviewed a range of key internal stakeholders, such as Firmenich's Chief Human Resources Officer, Chief Research & Development Officer, Chief Financial Officer, President of Flavors, Chief Supply Chain Officer, General Counsel and Secretary of the Board, President of Perfumery and Ingredients and Chief Purchasing Officer, to review and validate the draft matrix. Given their unique perspectives and in-depth understanding of different parts of our business, we were particularly interested to hear if they would move any issues on the matrix and their rationales for doing so.

5. Finalizing the matrix

Finally, we analyzed all the feedback from our internal interviews and finalized the materiality matrix (see next page).

OUTCOME OF THE ASSESSMENT

OUR MATERIAL ISSUES

AMPLIFYING GOVERNANCE

1. Labor standards
2. Business integrity
3. Product safety
4. Regulatory compliance
5. Health impacts from product exposure
6. Product quality
7. Occupational health & safety
8. Accumulation of toxins
9. Third party risk management
10. Employee wellbeing
11. Diversity & inclusion
12. Employee prosperity
13. Business continuity management
14. Alternatives to animal testing
15. Cybersecurity
16. Attracting & retaining talented employees
17. Governance & succession planning
18. Social & political unrest

ACCELERATING GROWTH

19. Sourcing responsibly
20. Supporting farmer livelihoods
21. Security of supply of raw materials
22. Active role in industry initiatives
23. Supporting local communities
24. Customer requirements
25. Enhancing nutrition, health & sanitation through our products
26. Investment in and outcomes of R&D
27. Changing consumer preferences
28. Championing product development for all market segments
29. Digitization
30. Public understanding of science

FAST-TRACKING GREEN

31. Preserving biodiversity
32. Reducing impact on climate change
33. Deforestation
34. Water use
35. Reducing & managing waste
36. Waste water
37. Energy efficiency
38. Adapting to the consequences of climate change
39. Sustainable packaging
40. Microplastics
41. Green science
42. Biodegradable ingredients
43. Circular economy

For definitions of Firmenich's material issues, see the appendix on page 12

All issues ranking "high" are considered to be significant and reported on in our 2018 Performance and Sustainability Report 2018 except for those issues that are emerging or have been recently identified. Accordingly, disclosure on management approach for the latter issues is limited and will be more elaborated moving forward.

NEXT STEPS

Firmenich expects to use the materiality matrix to inform strategic decision-making across the entire business.
In the first instance, we will update our Pathways to Positive strategy to reflect the highly material issues identified through the process. This will drive our sustainability approach in the future, and inform our goals and KPIs as we move closer to our target date of 2020. With a better understanding of our material issues and the direction of travel for our business, we will look at our partnerships and explore any new ones that may help us to achieve our sustainability ambitions.

As we progress on this journey, we will provide regular updates and communications on our website, and through our annual sustainability reporting.

Another key focus area for Firmenich will be our relationships with our stakeholders, and education. The materiality process has revealed some significant disparities between the perceived and actual materiality of certain issues among some of our stakeholder groups, and also within our organization. As a business that strives to move both our own operations and the industry as a whole forward, we will use these insights to shape our communications and build understanding and consensus around these issues.

Looking beyond sustainability, the matrix will feed into our risk management processes.

EMERGING ISSUES

As already mentioned, the materiality assessment process revealed some emerging issues for Firmenich, which we expect to become much more important over the coming years. We will track the movement of these issues on the materiality matrix over time.

One such issue is circular economy, which our internal stakeholders prioritized higher than our external stakeholders. As the demand for reusable/recyclable products and waste reduction grows, circular economy will become more and more important for our business. Firmenich is already carrying out a range of activities that further the circular economy of our products and operations. We will be monitoring this space closely and continue exploring opportunities to meet these demands to help the long-term viability and prosperity of our business and the industry as a whole.

Other emerging issues include digitization, cybersecurity, microplastics and those relating to our customer's needs and perceptions, both around Firmenich's products and also wider sustainability issues.

FIRMENICH'S SALIENT HUMAN RIGHTS ISSUES

'Human rights' is a broad and all-encompassing term, under which sit myriad issues. Earlier this year Firmenich conducted a workshop to identify the salient human rights issues for our business. See our Human Rights Policy Statement for more information. The outputs of our human rights process fed into the first (issue identification) stage of our materiality assessment process.

The human rights issues included within our materiality process, and shown on the materiality matrix, are listed below:

- Labor standards
- Business integrity
- Product safety
- Health impacts from product exposure

- Occupational health & safety
- Employee wellbeing
- Diversity & inclusion
- Sourcing responsibly
- Supporting farmer livelihoods
- Supporting local communities
- Enhancing nutrition, health & sanitation through our products
- Championing product development for all market segments

INTERLINKED ISSUES

Sustainability issues are complex and interconnected. In recognition for this, we have taken each of our salient sustainability issues (those in the top right-hand corner of the matrix) and illustrated how they interrelate with others on the matrix:

Business Integrity
- Labor standards
- Sourcing responsibly
- Regulatory compliance
- Third party risk management
- Social and political unrest

Security of Supply of raw materials
- Labor standards
- Business integrity
- Sourcing responsibly
- Supporting farmer livelihoods
- Preserving biodiversity
- Deforestation
- Water use
- Active role in industry initiatives
- Supporting local communities
- Product quality
- Customer requirements
- Adapting to the consequences of climate change
- Investment in outcomes of R&D
- Third part risk management
- Business continuity management
- Digitization
- Social & political unrest

Product quality
- Security of supply of raw materials
- Product safety
- Health impacts from product exposure
- Enhancing nutrition, health & sanitation through our products
- Investment in and outcomes of R&D
- Changing consumer preferences
- Third party risk management
- Championing product development for all market segments
- Business continuity management

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Championing product development for all market segments
- Customer requirements
- Water use
- Investment in & outcomes of research & development
- Active role in industry initiatives
- Energy efficiency
- Enhancing nutrition, health and sanitation through our products
- Changing consumer preferences

Microplastics
- Customer requirements
- Regulatory compliance
- Product safety
- Reducing & managing waste
- Active role in industry initiatives
- Accumulation of toxins
- Changing consumer preferences
- Biodegradable ingredients
- Circular economy
- Sustainable packaging

Customer requirements
- Product quality
- Product safety
- Health impacts from product exposures
- Accumulation of toxins
- Changing consumer preferences
- Public understanding of science
- Business continuity management
- Championing product development for all market segments

Regulatory Compliance
- Business integrity
- Labor standards
- Sourcing responsibly
- Alternatives to animal testing
- Third party risk management
- Business continuity management
- Customer requirements

Product safety
- Business integrity
- Waste water
- Health impacts from product exposure
- Active role in industry initiatives
- Accumulation of toxins
- Public understanding of science
- Changing consumer preferences
- Third party risk management
- Green science
- Business continuity management
- Customer requirements
- Product quality
- Regulatory compliance

Preserving biodiversity
- Sourcing responsibly
- Reducing impact on climate change
- Active role industry initiatives
- Supporting local communities
- Adapting to the consequences of climate change
- Microplastics
- Security of supply of raw materials

Supporting farmer livelihoods
- Labor standards
- Sourcing responsibly
- Active role in industry initiatives
- Supporting local communities
- Business continuity management
- Product quality
- Security of supply of raw materials

Sourcing responsibly
- Labor standards
- Business integrity
- Reducing impact on climate change
- Waste water
- Supporting local communities
- Adapting to the consequences of climate change
- Employee prosperity
- Water use
- Preserving biodiversity
- Deforestation
- Third party risk management
- Digitization
- Business continuity management
- Occupational health & safety
- Product quality
- Security of supply of raw materials
- Regulatory compliance
- Reducing and managing waste

Labor standards
- Sourcing responsibly
- Business integrity
- Supporting farmer livelihoods
- Supporting local communities
- Employee prosperity
- Third party risk management
- Employee wellbeing
- Occupational health & safety
- Regulatory compliance

MATERIAL ISSUES ALONG OUR VALUE CHAIN

The impacts, or potential impacts, from our "high" material issues occur in different parts of our value chain. These are mapped in the table below.

		Research & Development	Sourcing	Manufacturing	Distribution	Sale/use
Amplifying Governance	Labour standards		x	x		
	Product quality	x				x
	Business integrity	x		x		
	Product safety	x				x
	Regulatory compliance	x	x	x		
	Business continuity management		x	x	x	
	Occupational health and safety		x	x	x	
	Diversity & inclusion	x		x		
Accelerating Growth	Investment in, and outcomes of, research & development	x				x
	Enhancing nutrition, health and sanitation through Firmenich's products	x		x		x
	Security of supply of raw materials		x			
	Customer requirements	x	x	x	x	x
	Supporting local communities		x			
	Sourcing responsibly		x			
	Supporting farmer livelihoods		x			
	Championing product development for all market segments (including low income consumers and luxury market)	x			x	x
Fast-tracking Green	Green science	x		x		
	Preserving biodiversity	x	x			
	Deforestation		x			
	Adapting to the consequences of climate change	x	x	x	x	x
	Microplastics	x		x		x
	Reducing and managing waste	x		x		x
	Water use	x	x	x		x

FIRMENICH INVOLVEMENT WITH THE IMPACTS

In addition to indicating where impacts from our "high" material issues occur in the value chain, Firmenich's involvement with the impacts is described below for each of these material issues:

Amplifying Governance

Business integrity: Business integrity is a cornerstone of our culture. It is critical to our reputation as a family-owned company and to our relationships and collaboration with our business partners. Business integrity is embedded in our Code of Ethics and Business Conduct and is part of our day-to-day actions and behaviors.

Labor standards: Following labor standards is a requirement for any responsible company and for our employees to be respected and empowered. While we are directly involved with following those standards in our daily activities, we are indirectly linked to the impacts through our business relationships as we encourage our partners to follow those standards. .

Regulatory compliance: Complying with regulatory requirements is critical to the reputation and future of our company. It is our duty to comply with various regulations ranging from product safety to biodiversity, human rights, etc.

Product quality: The quality of our products is a business critical and non-negotiable obligation for our customers and is therefore essential to the success of our business. We are directly involved with the impacts of this issue by investing capital in product quality insurance, conducting integrated QHSSE (Quality, Health, Safety, Security, Environment) audits of our facilities and implementing a Proficiency Program to control quality in our labs.

Product safety: Our customers expect our products to be safe to use by their consumers globally. Product safety is therefore essential to the success and reputation of our business and is an issue we have a direct impact on through our food protection strategy including our global raw material risk assessment tool and a food protection risk map and through our Global Regulatory Services including toxicology

Occupational health and safety: The health & safety of our employees is of the utmost importance to our company. People are central to our fundamentals and human rights starts with the health and safety of our employees from our corporate offices to our production sites. Health and safety is key to a productive and motivated workforce.

Diversity & inclusion: A diverse workforce helps us innovate to meet the needs of our evolving customer base and deliver our business objectives. We have a direct impact on diversity & inclusion through our recruitment practices and promote diversity and inclusion throughout the organization through our Diversity and Inclusion Policy.

Business continuity management: Business contingency plans are critical to ensure we are prepared to respond to any risks ranging from supplier disruptions to natural events, societal risks, regulatory and trade compliance, etc. Although we can't control external risks, we can anticipate and mitigate negative impacts of those risks through our contingency plans.

Accelerating Growth

Sourcing responsibly: Responsible sourcing is essential to operate in a traceable and ethical value chain. Moreover, it responds to customers' demand for products that are responsibly sourced. While we have a direct impact on the products and services we source from our first tier suppliers, we have an indirect impact on this issue through our second tier suppliers and further down the value chain. Besides, as we aim to reduce the number of intermediaries in our value chain, we have increasingly more control and impact on responsible sourcing.

Supporting farmer livelihoods: Farmers grow raw materials that are essential to our creative process but that can be subject to high volatility due to external factors such as climate change or political instability. We have a direct impact on farmer livelihoods as the products we buy help them generate revenue, and we aim to support them through our Deep Roots program.

Security of supply of raw materials: Raw materials are at the heart of our production processes, research programs and business continuity. However, various factors such as climate change, biodiversity loss, supply chain disruptions, etc. can affect security of supply. We directly contribute to the security of raw materials by diversifying our portfolio of raw materials, by diversifying sources of supplies, and by forming strategic partnerships with suppliers.

Customer requirements: As a B to B company, Firmenich would not exist without its customers. Meeting our customers' requirements is a matter of survival for the company, making sure we do not become obsolete but rather a strategic partner able to anticipate and manage new requirement. In addition, in the area of global sustainability, we engage in regular dialogues and develop projects with our customers to better understand their requirements and needs as well as the shifts occurring amongst their consumers.

Championing product development for all market segments: Consumer groups at the base of the pyramid (BoP) have many unmet needs that cannot only be met by NGOs or government programs. In the past 15 years, business has demonstrated that it can positively impact this dynamic market. Firmenich's quest for positive impact leads us to go beyond the mass and luxury markets and serve BoP consumers. While we apply our malodor control technology to products that will be made available to low-income consumers in the coming six months, we are working on championing food product development in locations where malnutrition is a challenge.

Investment in and outcomes of R&D: Firmenich has a long tradition of investing large percentage if its turnover in research. The sophistication of its researchers has been for instance celebrated by Bill Gates and many scientific journals. Our work on biotechnologies for many years demonstrates that investment in R&D is critical to offer new product solutions using new biomass. Our research programs in sugar reduction and malodor control are leading to new programs to be released in 2019 that will directly impact public health globally.

Enhancing nutrition, health & sanitation through our products: As a responsible flavor and fragrance company, we are committed to help address the global challenges of food and sanitation. While we don't have a direct impact on those issues, we can indirectly contribute to address those challenges by enhancing nutrition, health and sanitation through our products. We enhance nutrition through technologies that can reduce sugar, fat and salt and our work on green protein while we enhance health and sanitation by applying our malodor control technology to products that will be available on the market in the coming months.

Fast-Tracking Green

Microplastics: As an emerging and newly identified issue, we are looking into this issue to better understand our impact along the value chain and our involvement with the impact.

Preserving biodiversity: Biodiversity is fundamental to our business because it is critical to our innovation pipeline and is a core part of our natural sourcing programs and our R&D programs. We are directly involved with preserving biodiversity in Grasse where our Naturals Center of Excellence is using the Ethical BioTrade Standard. In addition, we promote sourcing practices that respect biodiversity and traditional knowledge.

Deforestation: Deforestation is responsible for up to 15% of global greenhouse gas emissions. Addressing deforestation is therefore critical to prevent dangerous climate change. As a business to business company, we are not directly involved with this issue but are indirectly linked to the impacts through our business relationships and directly impact this issue through our investment in the Livelihoods Funds.

Reducing & managing waste: Our manufacturing sites generate waste which we aim to reduce in order to minimize our negative impact on the environment through process efficiencies, changes and waste recycling. While we have a direct impact on reducing and managing waste in our manufacturing sites, we are indirectly involved with the impacts of waste in our sourcing practices and work with partners to upcycle food waste.

Green science: Green science is key to maximize efficiency and minimize hazardous effects on health and the environment. We use green chemistry to optimize research and development processes and develop environmentally-friendly and safe products so we are directly involved with the impact of green science.

Water use: We use water on our manufacturing sites and source raw materials from water-scarce or water-stressed areas. Some of our products ultimately result in being delivered on water-scarce or water-stressed regions. While we have a direct impact on the water we use in our manufacturing processes and aim to reduce our water consumption especially in water-stressed areas, we have an indirect impact on water use along the value chain and can contribute to minimizing our impact through our research and development activities and our activities with producers on the ground.

Reducing impact on climate change: Climate change is affecting the world including businesses. It is therefore important for Firmenich to play its part and reduce its impact on climate change. We have a direct impact on CO_2 emissions reductions by reducing absolute Scope 1 and 2 emissions and have an indirect impact by working with our suppliers to reduce scope 3 emissions through the CDP Supply Chain Climate Change program.

APPENDIX

Material issue definitions

	Issue	Definition
Amplifying Governance	Alternatives to animal testing	Use of testing methods that don't require testing on animals.
	Social and political unrest	Social or political unrest which could lead to loss of license to operate, impact the value chain or change customer/consumer behaviour.
	Accumulation of toxins	Managing and reducing the accumulation of chemicals, both in living organisms and the environment.
	Labor standards	Ensuring good, fair and just labor standards, which respect fundamental human rights. Includes efforts to eliminate child and forced labour along the supply chain.
	Product quality	Producing top quality products and solutions for customers.
	Business integrity	Ensuring a proper business culture and decision-making processes, free from bribery, corruption and fraud.
	Product safety	Producing safe products for consumers.
	Regulatory compliance	Responding and adhering to regulatory requirements, including pre-empting and shaping future requirements.
	Third party risk management	Ensuring all third parties along the value chain adhere to Firmenich's business practice standards.
	Business continuity management	Ensuring a viable business trajectory for the company to continue supplying customers.
	Cybersecurity	Ensuring the security of data and systems from external parties.
	Governance and succession planning	Transparency around Firmenich's governance structure and long-term succession planning.
	Employee wellbeing	Providing a supportive work environment and culture that enables our employees and ensures their happiness and wellbeing.
	Attracting and retaining talented employees	Creating a workplace that's attractive to prospective employees and where current employees can forge fulfilling careers.
	Occupational health and safety	Ensuring a safe workplace for our employees that doesn't compromise their health.
	Health impacts from product exposure	Understanding and preventing any possible negative health impacts from exposure to Firmenich's products and production methods, and adhering to toxicology regulation.
	Diversity & inclusion	Providing a diverse and welcoming workplace that treats all staff fairly and equally, bringing people from different communities together.
	Employee prosperity	Providing good quality employment that pays fairly, enabling employees to thrive and maintain a high standard of living.
Accelerating Growth	Investment in, and outcomes of, research & development	The generation of new products and solutions to help differentiate Firmenich, ensure its viability for the future and maintain its leading position in the sector.
	Enhancing nutrition, health and sanitation through Firmenich's products	Offering solutions to customers that enable them to provide more nutirious foods and improve levels of health and sanitation among consumers.
	Public understanding of science	Staying on top of, and shaping public understanding of science.
	Digitization	Responsible digital advancements that allow for more resilient systems, processes and efficiencies along the entire value chain. For example, enhanced traceability and transparency through the use of blockchain technology.
	Security of supply of raw materials	Managing the supply and availability of raw materials.
	Changing consumer preferences	Responding to and influencing changing consumer demands, including product additives, ingredients and levels of transparency.
	Customer requirements	Responding to and influencing changing customer needs in response to changing consumer demands.
	Supporting local communities	Working with and supporting local communities by providing high quality employment, sourcing locally and contributing to the local economy to ensure improved livelihoods, prosperity and wellbeing.
	Sourcing responsibly	Ensuring a fair and ethical supply chain through audits and self-reporting.
	Supporting farmer livelihoods	Building long-term relationships with local farmers and paying them a fair price to help them prosper.
	Championing product development for all market segments (including low income consumers and luxury market)	Developing products in collaboration with our customers that serve all market segments, including low-income consumers as well as the luxury market.
	Taking an active role in industry initiatives	Maintaining visibility in and actively driving change through relevant industry initiatives.
Fast-tracking Green	Green science	The production of less hazardous, renewable, efficiently produced, nature preserving alternative and/or lower emission products.
	Preserving biodiversity	Sourcing raw materials in a way which minimises negative impacts on ecosystems, such as soil and land degradation.
	Deforestation	Sourcing raw materials in a way which does not require for deforestation.
	Reducing our impact on climate change	Reducing Firmenich's negative impact on the climate, including greenhouse gas emissions which contribute to climate change (in our business operations and along our supply chain).
	Adapting to the consequences of climate change	Adapting to the consequences of climate change and its impact on other environmental, social and economic issues.
	Energy efficiency	Use of renewable energy sources and processes to enhance energy efficiency.
	Microplastics	Managing the use of microplastics along the value chain to prevent negative environmental impacts.
	Biodegradable ingredients	Producing ingredients which naturally degrade to reduce waste accumulation.
	Circular economy	Moving towards a more cyclical value chain whereby 'waste' products can be re-used as raw materials for new products.
	Reducing and managing waste	Managing waste production, disposal and types to reduce waste to landfill, and other negative environmental impacts.
	Sustainable packaging	Managing product packaging to reduce the amount of waste.
	Water use	Managing the use of water for efficiency and responsible consumption along our value chain.
	Waste water	Preventing pollution to water supplies and managing waste water such that it can be reused as input.