



PHILIP MORRIS INTERNATIONAL

INTEGRATED REPORT 2021

we were

we are transforming for good

we will be

Russian invasion of Ukraine

We have watched with horror the unfolding armed conflict and Russia's invasion of Ukraine. We condemn the violence in the strongest possible terms and join those calling for an immediate cease fire and restoration of peace.

Since the outset, PMI's priority in Ukraine has been to look after the safety and security of its more than 1,300 employees and their families in the country. Concretely, PMI has taken action to achieve three critical missions:

1. Helping to evacuate more than 1,000 people from Ukraine and relocate more than 2,700 internally displaced from conflict zones to locations in the country away from the heaviest fighting
2. Providing critical aid to employees who cannot leave or who decide to remain in Ukraine
3. Providing those who have left seeking refuge outside of Ukraine, in neighboring countries, with logistical, medical, financial, and other practical support

PMI continues to pay the salaries of all its Ukrainian employees, in addition to providing substantial in-kind support to them and their families.

In addition, we have already contributed around USD 10 million in funds and donated essential items across the country, directly to humanitarian organizations and through our own employee-led initiative, "Projects With a Heart." These donations include: providing medicines, food, clothes, and a variety of other items to both our colleagues as well as the broader population; the purchase of 25 ambulances; and the set-up of a mobile hospital. Based on our current visibility, we estimate an additional USD 25 million will be incurred for additional support to employees this year.

On February 25th, PMI announced the temporary suspension of its operations in Ukraine, including at its factory in Kharkiv. While activities in the east of Ukraine remain the most heavily impacted, the company has seen some resumption of retail activities where safety allows, as it seeks to provide product availability and service to adult consumers, using existing finished goods inventories on hand. The company is also working on future supply from other production centers, although this may involve higher costs. PMI is applying increased security and safety measures for personnel.

In 2021, Ukraine accounted for around 2 percent of PMI's total cigarette and heated tobacco unit shipment volume and under 2 percent of PMI's total net revenues. As of March 31, 2022, PMI's Ukrainian operations have approximately USD 400 million in total assets.

On March 24th, PMI announced the concrete steps it had taken to suspend planned investments and scale down its manufacturing operations in Russia, following its related announcement on March 9th. This included:

- The discontinuation of a number of cigarette products offered in the market (representing approximately one-quarter of the company's domestic cigarette SKUs, including Marlboro and Parliament SKUs) and the reduction of its manufacturing activities accordingly
- The suspension of its marketing activities in the country
- The cancellation of all product launches planned for 2022 in the market, including the launch of its flagship heated tobacco product IQOS ILUMA, originally planned for March 2022
- The cancellation of its plans to manufacture TEREA heated tobacco units for IQOS ILUMA in Russia (with an eventual annualized capacity of more than 20 billion units) and the related ongoing investment of \$150 million

Further, PMI announced that its Board of Directors and senior executives are working on options to exit the Russian market in an orderly manner, in the context of an increasingly complex and rapidly changing regulatory and operating environment.

PMI employs more than 3,200 people in Russia and will continue to support its employees there, including paying their salaries, while continuing to fulfill its legal obligations. The company will continue to make decisions with their safety and security as a priority.

In 2021, Russia made up almost 10 percent of total shipment volumes and around 6 percent of PMI net revenues. As of March 31, 2022, PMI's Russian operations have approximately USD 1.4 billion in total assets.

The aspirations, goals, and forward-looking plans contained in this report may be impacted by the February 2022 Russian invasion of Ukraine and its potential effects on our business over the mid to long term, which remain uncertain.

As part of our broader plan to evaluate our published sustainability aspirations to ensure they remain ambitious, reasonable, and achievable in the context of a dynamic and evolving smoke-free industry, we will also assess and reflect the impact of the invasion. Considering the volatility and rapidly changing environment, we continue to monitor the situation closely. We will communicate any related changes within the next year.

Aspirational targets and goals do not constitute financial projections, and achievement of future results is subject to risks, uncertainties, and inaccurate assumptions, as outlined in our forward-looking and cautionary statements on [page 252](#) of this report.

"Our responsibility is to all our stakeholders, which include shareholders, governments and the public they represent, our employees—all our employees, and our consumers. Every decision we make must find the optimum balance between the interests of these audiences. We do not act in a vacuum. We have a responsibility to our people in Ukraine and our actions show the lengths to which we are going to help them. In Russia, we built our business over a period of nearly 30 years, serving millions of loyal adult consumers. We have a responsibility to our more than 3,200 employees and their families. There are no simple solutions. We have announced we are working on options to exit the Russian market in an orderly manner and that is what we intend to do."

Jacek Olczak Chief Executive Officer



Contents

2021 highlights	6
PMI's Statement of Purpose	7
Letter from our Chief Executive Officer	12
Letter from our Chief Financial Officer	14
Overview	
Our company	18
Global trends	20
Industry trends	22
Stakeholder engagement	28
Strategy	
Transforming for good	32
– Our business transformation	32
– PMI's Business Transformation Metrics	34
– Anchoring sustainability at the core of our strategy	38
– Setting ambitions and targets	44
Our 2025 Roadmap	46
PMI Sustainability Index	47
Creating value	48
Letter from our Chief Sustainability Officer	50
Corporate governance and management	52
Risk management	56
Fundamentals	
Conduct R&D responsibly and transparently	196
Sustain product reliability	198
Nicotine science	201
Uphold business ethics and integrity	205
Respect human rights	208
Manage our supply chain sustainably	213
Safeguard privacy and protect data	221
Apply fair fiscal practices	222
Prevent illicit trade	224

PRODUCT IMPACT



Purposefully phase out cigarettes	60
Maximize the benefits of smoke-free products	64
Seek net positive impact in wellness and healthcare	90
Reduce post-consumer waste	98

OPERATIONAL IMPACT



Foster an empowered and inclusive workplace	120
Improve the quality of life of people in our supply chain	144
Tackle climate change	162
Preserve nature	178

Reporting and performance

About this report	228
Performance in ESG ratings, rankings, and indices	229
Performance metrics	232
Independent assurance report	245
Glossary of terms and acronyms	248
Forward-looking and cautionary statements	252
Notes	253

About PMI

Philip Morris International (PMI) is a leading international tobacco company working to deliver a smoke-free future and evolving its portfolio for the long-term to include products outside of the tobacco and nicotine sector.

The company's current product portfolio primarily consists of cigarettes and smoke-free products, including heat-not-burn, vapor, and oral nicotine products, which are sold in markets outside the U.S. Since 2008, PMI has invested more than USD 9 billion to develop, scientifically substantiate, and commercialize innovative smoke-free products for adults who would otherwise continue to smoke, with the goal of completely ending the sale of cigarettes.

This includes the building of world-class scientific assessment capabilities, notably in the areas of pre-clinical systems toxicology, clinical and behavioral research, as well as post-market studies. The U.S. Food and Drug Administration (FDA) has authorized the marketing of versions of PMI's IQOS Platform 1 devices and consumables as Modified Risk Tobacco Products (MRTPs), finding that exposure modification orders for these products are appropriate to promote the public health. With a strong foundation and significant expertise in life sciences, in February 2021, PMI announced its ambition to expand into wellness and healthcare areas and deliver innovative products and solutions that aim to address unmet patient and consumer needs.

→ For more information, please visit www.pmi.com and www.pmiscience.com

This report at a glance

We are pleased to present our 2021 Integrated Report, which describes how we are delivering on our purpose and provides detailed information about our strategic vision, performance, governance, and value creation. The content is shaped by a formal sustainability materiality assessment conducted during 2021. Unless otherwise indicated, the data contained herein cover our operations worldwide for the full calendar year 2021, or reflect the status as of December 31, 2021. Where not specified, data come from PMI financials, nonfinancials, or estimates. Unless explicitly stated, the data and information in this report do not incorporate wellness and healthcare acquisitions made by PMI during 2021 of Fertin Pharma A/S, Vectura Group plc., and OtiTopic, Inc.

In 2021, the world—and our company—continued to navigate the far-reaching impacts of the COVID-19 pandemic. Throughout the year, our priority remained to protect the health, safety, and well-being of our employees and address the needs of our stakeholders while relentlessly working toward our purpose of achieving a smoke-free future. In this report, we describe how COVID-19 has shaped the environment in which we operate and impacted our work across various sustainability topics and how we have responded and adapted to these new circumstances.

This third annual integrated report is accompanied by a set of publications available for download on PMI.com:

Reporting indices

Separate indices mapping content of this report against internationally recognized standards and frameworks

Performance data

Our consolidated sustainability performance data all in one place

ESG Highlights

Highlights of our strategy and performance in 2021

Case studies

Country-level case studies shedding light on our work on priority sustainability areas

ESG KPI Protocol

Details on calculation methods, definitions, and scope of key sustainability performance indicators

→ Read more about this report



2021 highlights

PRODUCT IMPACT

SOCIAL

ENVIRONMENT

21.7 m

Total adult users of PMI's smoke-free products, of whom 15.3 million have switched and stopped smoking
(2020: 18.3 m; 13.0 m)

USD 9.2 bn

Cumulative investments behind smoke-free products since 2008²
(2020: 8.1 bn)

86%

Recycling rate of IQOS devices returned to our centralized recycling hubs (weighted-average percentage of each device that is recycled)⁴
(2020: 84%)

**29.1%**

Of adjusted net revenues derived from smoke-free products, which were available for sale in 71 markets worldwide by year-end¹
(2020: 23.8%; 64)

91%

Of total shipment volume covered by youth access prevention programs in indirect retail channels³
(2020: 94%)

Smoke-free consumables

Programs deployed to take back smoke-free consumables after use by consumers in various markets, including Canada, Finland, Guatemala, and Switzerland

5

Human rights impact assessments conducted since 2018 in highest-risk countries and action plans being implemented
(2020: 4)

Triple A

Score from CDP for the second consecutive year, recognizing our efforts to combat climate change, protect forests, and promote water security

SOCIAL

ENVIRONMENT

39.7%

Of management positions held by women, on track to achieve our 2022 target of 40 percent⁵
(2020: 37.7%)

**Agricultural Labor Practices**

Publication of a dedicated report celebrating the 10-year anniversary of PMI's Agricultural Labor Practices (ALP) program in its tobacco supply chain

Low-Carbon Transition Plan

Publication of strategy to decarbonize our direct operations by 2025 and our entire value chain by 2040

100%

Of tobacco purchased at no risk of deforestation of primary and protected forests
(2020: 100%)

PMI's Statement of Purpose

While Philip Morris International Inc. ("PMI" or the "Company") is widely known as a cigarette company, in 2016 it announced its new purpose: to deliver a smoke-free future by focusing its resources on developing, scientifically substantiating, and responsibly commercializing smoke-free products that are less harmful than smoking, with the aim of completely replacing cigarettes as soon as possible. These innovative alternative products do not burn tobacco or create smoke, and therefore emit significantly lower levels of carcinogens and other toxic substances than cigarettes.

Building on the Board's Letter to Shareholders and the first Statement of Purpose in PMI's 2017 and 2020 Proxy Statements respectively, we reaffirm PMI's purpose and acknowledge that, as the Company continues to transform its business and organization, its core effort to provide smoke-free alternatives that appeal to today's adult smokers—and to work hard to convince them to switch—will not be enough. The Company needs to continue earning the trust and active cooperation of a host of stakeholders, from supply chain partners to regulators and public health authorities.

A smoke-free future is attainable, and the benefits it can bring to the people who would otherwise continue to smoke, and hence to global public health, are enormous. However, the Company cannot succeed alone. Together with governments and civil society, we can maximize this opportunity through a consensus that smoke-free alternatives, when subject to proper government oversight and regulation, are part of a sound tobacco policy.

Smoking causes serious disease, and the best way to avoid the harms of smoking is never to start or, for those who smoke, to quit. For decades, tobacco control has focused on strict fiscal, marketing, and other measures to deter initiation and to encourage cessation. These must be continued. Nevertheless, while smoking prevalence rates continue to slowly decline, the World Health Organization projects that the estimated number of 1.1 billion people who smoke tobacco products today will remain largely unchanged by 2025, reflecting population growth.¹

Nicotine, while addictive and not risk-free, is not the primary cause of smoking-related disease. The primary cause is the harmful chemicals emitted while burning tobacco and contained in the smoke. Eliminating combustion from nicotine-containing products is the way to significantly reduce their toxicity. Thanks to rapid advances in science and technology, and a strong PMI commitment, these products are now a reality.

In 2016, with the full support of the Board of Directors, the Company announced its new purpose of delivering a smoke-free future. Since then, the Company has fully aligned its employees with this purpose and swiftly shifted its organizational focus and resources to smoke-free alternatives. The Company is essentially disrupting its traditional business from the inside out and is leading the industry in this unprecedented transformation.

PMI's smoke-free product portfolio currently includes heat-not-burn products, nicotine-containing vapor products, and oral nicotine products, all without combustion. Their development and manufacturing follow high standards of quality and consistency.

The Company is committed to scientifically substantiating the harm reduction potential of its smoke-free alternatives compared to cigarette smoking, including through rigorous preclinical and clinical assessments and sophisticated systems toxicology. Our scientific findings are publicly available and peer-reviewed, and we have submitted many of our findings to regulatory authorities, including the U.S. Food and Drug Administration. The totality of the scientific evidence makes the Company confident that switching completely to smoke-free products is likely to present less risk of harm than continuing to smoke. Post-market surveillance is necessary to continue building this confidence and, over time, quantify the reduction in morbidity and mortality through epidemiology.

To be clear, these smoke-free alternatives are not risk-free and should not be used by youth or adults who would not otherwise continue to smoke or use other nicotine products. The Company must market its smoke-free alternatives responsibly to minimize any unintended use while maximizing the switching of adult smokers who would otherwise continue smoking.

¹ Number of markets where PMI smoke-free products were available for sale: 2021 figure excludes Belarus and the U.S.

² Investments reflect research, product and commercial development, production capacity, scientific substantiation, and studies on adult smoker understanding.

³ Total shipment volume includes cigarettes, heated tobacco units, other tobacco products, e-cigarettes, and snus. In 2021, we evolved our minimum requirements for effective youth access prevention (YAP) programs in indirect retail channels.

⁴ Including recycling (78%) and incineration with energy recovery (8%).

⁵ Calculation methodology updated in 2021 to expand data scope to employees on long-term leave (over 30 calendar days). 2020 data restated accordingly.



While cigarette sales today remain the largest part of PMI's business in most countries, this is changing rapidly. The Company is actively accelerating the decline of cigarette smoking beyond what traditional tobacco control measures can achieve alone. To make its progress both measurable and verifiable, the Company developed a set of bespoke key performance indicators called Business Transformation Metrics. This set of metrics and related goals, which PMI reports on periodically, allow stakeholders to assess both the pace and the scale of its transformation and showcase how it is allocating resources away from its traditional cigarette business, aiming to base success on a future where it no longer makes or sells cigarettes.

Although the Company's transformation journey started with a vision centered on the critical mission of phasing out cigarettes, this is not its sole or ultimate end goal. Researching and developing noncombustible alternatives that are scientifically substantiated to be less harmful than cigarettes was the first step. Broadening access for adult smokers while simultaneously and deliberately working to phase out cigarette smoking completed the equation of its smoke-free purpose. In the process, the Company has expanded its social, human, intellectual, and manufactured capital in ways that allow it to go a step further, moving from a value proposition centered on doing less harm toward one where it can seek to have a net positive impact on society.

PMI is now actively working to expand its purpose and evolve into a broader lifestyle, consumer wellness and healthcare company, extending its value proposition and innovative capability to commercialize products that go beyond tobacco and nicotine.

This is built on two key growth areas: (1) wellness products, where the Company is developing and looking to commercialize scientifically substantiated consumer health products and solutions with the aim to improve people's lives (2) healthcare products, where it has already committed resources to its development pipeline of over-the-counter and prescription products.

This is part of a larger transformation that puts science, technology, and sustainability at the heart of PMI's future by building on the Company's expertise and investment in aerosol chemistry and physics, device technology, clinical research, and best-in-class preclinical safety and inhalation models.

PMI's key stakeholder constituencies, which are fundamental to both the achieving of its purpose and to the pace of its progress, will be affected in different ways by PMI's transformation. The Company will seek to engage and collaborate with relevant stakeholders to speed the transformation while mitigating negative consequences.

Consumers

Adult smokers and adult nicotine users are at the core of PMI's business transformation. The public health benefit of smoke-free products depends not only on their potential to reduce the risk of smoking-related disease compared to continued smoking but also on if they are actually used as alternatives to cigarettes by as many adult smokers as possible. For smokers to switch to them, these alternatives must be accessible. Increasing accessibility means improving consumer awareness, acceptability, as well as the availability and affordability of our smoke-free products. Acceptability means delivering experiences that satisfy the needs of adult smokers while significantly reducing the exposure to the harmful and potentially harmful constituents of cigarette smoke. It is vital that we engage with adult smokers to raise awareness of smoke-free products and their benefits compared with cigarettes.

While PMI will continue to responsibly sell cigarettes as long as there is a significant legitimate demand, it will leverage its leading position to accelerate switching to better alternatives, continuing to focus its commercial efforts toward raising awareness of, and informing adult smokers in appropriate ways about, scientifically substantiated smoke-free products and the benefits of switching versus continued smoking. The Company carefully monitors the results of its marketing to minimize any unintended use of its smoke-free products by nonsmokers, especially youth.

In addition, PMI's new businesses will leverage its know-how and capabilities in areas such as inhalation and aerosolization to create better products to target unmet medical and consumer needs and deliver a better experience and enhanced products for consumers and patients.

Employees

PMI's ability to accomplish its purpose depends on the skills, dedication, and relentless efforts of its employees. The Company's focus on a smoke-free future and long-term opportunities in wellness and healthcare has enhanced its ability to attract the new talent needed to support its transformation. The Company compensates its employees fairly and provides important benefits. It supports them with enriching job experiences, training, and education to help them develop new skills and maximize their employability in a rapidly changing world. The Company treats employees with respect, dignity, care, and fairness. It fosters diversity, inclusion, equal opportunity, and equal salary policies to ensure PMI's workforce reflects modern society.

Regulators

Regulators can decisively accelerate the industry's transformation toward, and the speed at which adult smokers switch to, smoke-free products by implementing risk-proportionate regulations and taxation for all nicotine-containing products and by providing smokers with accurate information. PMI is committed to engaging transparently with regulators, sharing its scientific research and post-market data. The Company is ready to support an industry-wide gradual phaseout of cigarettes as soon as a majority of smokers in a country have switched to scientifically substantiated smoke-free products. PMI believes that with the right regulatory encouragement and support from civil society, cigarette sales can end within 10 to 15 years in many countries.

Public health community

The public health community is, unfortunately, polarized on the issue of smoke-free products. Without question, their work to discourage youth and nonsmokers from starting to use any tobacco or nicotine product and to encourage cessation should continue. At the same time, when better alternatives to cigarettes exist, the discussion should not be whether they should be made available to the more than one billion people who smoke today, but how fast and within what regulatory framework to maximize their adoption while minimizing unintended use.

The Company is urging this important stakeholder group to seize the immense opportunity that smoke-free products present for advancing public health within the current generation of smokers. PMI asks the public health community to scrutinize its smoke-free products, to provide feedback for improvement, and to be open to considering that PMI's purpose aligns with the societal goal to change the health trajectories of the people who smoke.

Supply chain

People working in the Company's supply chain around the world, including tobacco farmers, rely on PMI for a substantial portion of their income. PMI deals fairly and ethically with its suppliers and is dedicated to acting as a good partner to other companies, large and small, that help us meet PMI's mission. PMI recognizes that smoke-free products differ from cigarettes and entail change for some of its supply chain partners, and PMI is ready to help them in this transition.

Civil society

Continued engagement and partnerships with civil society remain essential to the Company's success. PMI respects the many communities and the environment around the world where it operates. PMI works hard to protect society and the environment through sustainable practices across its businesses, and to both address and prevent future social and environmental challenges, including reducing post-consumer waste (focusing on eco-design and circularity), tackling climate change, preserving nature, improving the quality of life of people in our supply chain, and fostering an empowered and inclusive workplace. The scope, metrics, and progress on these areas are outlined in PMI's annual Integrated Report, published on PMI's website.



Shareholders

The Company is confident in the core business growth prospects of smoke-free products and the significant additional long-term opportunity from innovating in wellness and healthcare. It is leading the new, highly promising category of smoke-free products and leveraging its unique capabilities to capture further areas of growth. PMI is dedicated to ensuring its shareholders continue to receive strong and sustainable financial returns over time. It is aware of the growing tendency among some investors toward exclusion and negative screening but does not believe it is an effective driver of change that can have a positive impact, especially with regard to driving behavioral change in convincing people who smoke to quit or improve their lives. On the contrary, by investing in PMI and holding the Company accountable to its purpose and targets, investors can combine positive societal impact with long-term financial returns. The Company welcomes suggestions, pressure, and support through engagement with both current and potential investors.

The Company understands the need to continue to build legitimacy and trust by being honest, respectful, fair, and transparent and by aligning actions with words across all areas of its business. To assess the impact of PMI's current and future value chains on society and the environment, the Company regularly conducts sustainability materiality analyses and measures and reports its performance through financial, environmental, and social metrics that are key to a sustainable corporate strategy.

It is management's responsibility to ensure that the Company's purpose is achieved through the appropriate structures, systems, processes, and people.

The Board oversees management's efforts to enhance shareholder value responsibly and sustainably over the long-term in ways that are consistent with the Company's purpose. Transparency and engagement between the Board and management are paramount, and we are all working toward PMI's successful transformation.

To better align with shareholder and other stakeholder interests in achieving its purpose, the introduction of the Sustainability Index has allowed the Compensation and Leadership Development Committee of the Board to enhance the company's compensation practices, explicitly linking it to ESG performance and further ensuring a strong link between executive compensation and both short- and long-term performance.

In conclusion, PMI remains committed to accelerating the end of smoking and laying the foundations for a strong business in areas of wellness and healthcare as we strive to develop commercially successful products that have a net positive impact on society. This means not only transforming the Company to deliver on its purpose but also inspiring the industry to follow its lead.

About PMI's Statement of Purpose

PMI's 2017 Proxy Statement contained a letter to shareholders from the Board of Directors announcing for the first time our company's smoke-free vision. Building on this groundwork, our Board of Directors issued on March 26, 2020, in our company's 2020 Proxy Statement, a letter that corresponds to PMI's Statement of Purpose.

In early 2022, PMI's Board of Directors issued another letter reaffirming our purpose of delivering a smoke-free future and announcing the expansion of our business for the long-term toward areas outside of tobacco and nicotine. This letter, our Statement of Purpose, is replicated on the previous pages of this report.

Message from PMI's Executive Chairman

The changes introduced to our Statement of Purpose were made to ensure it remains a current and fair representation of our company's strategy. Importantly, updating the company's Statement of Purpose maintains consistency and coherence with our company's strategy and related reporting.

Changes to our strategy and vision prompted the revision of our Statement of Purpose, expanding it to no longer have as its last horizon to achieve a smoke-free future, but also to encompass our strategic efforts to venture toward becoming a wellness and healthcare company. Notably, we aspire to achieve at least USD 1 billion in net revenues from such sources by 2025.

This is a clear, strong, and proper way to articulate our company's purpose. It consists of a simple declaration that clearly harmonizes commercial success with social accountability and responsibility. It transparently specifies those stakeholders most critical to long-term value creation and sustainability.

André Calantzopoulos
Executive Chairman



PMI's Board of Directors

Bonin Bough	Lisa Hook	Frederik Paulsen
André Calantzopoulos	Jun Makihara	Robert B. Polet
Michel Combes	Kalpana Morparia	Dessislava Temperley
Juan José Daboub	Lucio A. Noto	Shlomo Yanai
Werner Geissler	Jacek Olczak	

Letter from our Chief Executive Officer

Sustainability is the core of our company's transformation



“Our ability to respond and adapt to change and sudden disruptions will be proven over time, and I am confident that the resilience of our people and strength of our purpose will allow our organization to live and prosper.”

Just like 2020, in 2021, amid the lingering headwinds of the COVID-19 pandemic and supply chain disruptions, our clear priority remained to protect the health, safety, and well-being of our employees. We took measures to prevent the spread of infection, sustain our operations, and support not only our employees and their families but also the communities in which we operate.

Early in 2022, we watched with shock the war in Ukraine unfold before us. Our immediate priority was, and continues to be, the safety and security of our employees and their families. We condemn the violence in the strongest possible terms, stand in solidarity with those who are suffering, and join the many voices calling for an immediate end to the war and the restoration of peace.

Our ability to respond and adapt to change and sudden disruptions will be proven over time, and I am confident that the resilience of our people and strength of our purpose will allow our organization to live and prosper.

During 2021, and despite the challenging environment, we continued to deliver a strong financial and nonfinancial performance, and I am enormously proud of our achievements.

In a pivotal year for societal action on climate change, we accelerated our targets for carbon neutrality in our operations and net zero emissions across our value chain, and detailed our strategies and roadmap in our Low-Carbon Transition Plan. We continued to progress against our zero deforestation and water stewardship ambitions and took meaningful steps toward developing a holistic biodiversity strategy.

Our environmental sustainability leadership was recognized with a Triple A score by the CDP for the second consecutive year. Committed to maintaining best-in-class performance, we must not forget the environmental impact of our products and will continue to embed eco-design and circularity principles in their development and their end-of-life management.

We also celebrated the tenth anniversary of our Agricultural Labor Practices program, aimed at improving labor practices and livelihoods in our tobacco supply chain. We remain vigilant in our approach to tackling systemic issues and are encouraged by the progress made so far in reducing child labor incidence and improving income levels across our contracted tobacco farms. In 2021, we continued to conduct human rights impact assessments, completing one in our tobacco supply chain in Turkey and commencing our sixth assessment in Malaysia.

Promoting diversity, equity, equality, and inclusion is paramount for our company and a priority for me. Although we made continued progress over the past few years, much work remains to be done, and I am proud to be one of the commissioners of the newly formed Business Commission to Tackle Inequality, spearheaded by the World Business Council for Sustainable Development. We shall continue our work to promote human capital development, ensure a living income for all our contracted farmers, and explore ways to ensure workers in our direct supply chain earn at least a living wage.

Seven years ago, we set out to create a new future for PMI—a future in which cigarettes would be obsolete, replaced by less harmful, science-based alternatives. In 2021, we kept our relentless focus on that ambition, dedicating 99 percent of our research and development and 73 percent of our commercial expenditure to smoke-free products. Moreover, smoke-free products represented over 29 percent of our adjusted net revenues and, by year-end, we estimate that more than 15 million adults in total had switched to IQOS and stopped smoking. The strong position of our smoke-free business has allowed us to accelerate our timeline; early in 2021, we announced our ambition that by 2025 our smoke-free products would be sold in 100 markets and at least 50 percent of our net revenues would derive from smoke-free products.

PMI is committed to serving as an agent of change and advocate of positive values. We understand that our business must become a provider of effective alternatives. To achieve this, we are positioning ourselves at the forefront of consumer-centricity, technology, science, and innovation. With an eye to the long term, we are expanding our business into areas beyond tobacco and nicotine such as wellness and healthcare. Our ambition is that by 2025, at least USD 1 billion of our net revenues will derive from these adjacent avenues of growth, marking

an initial milestone for a business with potential to grow much further over the longer term.

Last year, we acquired Vectura, Fertin Pharma, and OtiTopic—three leading and innovative companies with which we are excited to join forces to achieve a common purpose: building world-class expertise in the research, development, and commercialization of solutions that have a net positive impact on society. Although this Integrated Report does not account for the impact of these acquisitions, 2022 will be a year when we further their integration so that the progress they achieve can be captured in our reporting efforts.

Transforming our business means venturing into a number of uncharted territories, each bringing unique challenges. I say this with pride in what we have already achieved, yet with a deep recognition of the immense work ahead. We will always have critics, and we remain committed to engaging with them honestly and transparently, pointing out the actions we are taking to address their concerns and welcoming feedback on how we can do better.

Our actions—grounded in data, science, and facts—speak louder than words. That said, our societal interactions, especially when it comes to our company's transformation, bring an emotional component that can carry a heavy weight. Consequently, we will work to promote constructive dialogue and address our stakeholders' legitimate concerns appropriately. We cannot make cigarettes obsolete in the absence of collaboration and coalition.

Without dismissing our past, I hope our 2021 Integrated Report provides a clear window into our present, as well as a more detailed view of the future we envision. I hope, too, that this report will spark dialogue and that our stakeholders will accept the invitation to judge us not for the company we were but for the company we are today and are working hard to become, as well as by the tangible progress we have made. It is through constructive engagement that we will accelerate the pace of meaningful and impactful change.

A handwritten signature in blue ink that reads "Jacek Olczak".

Jacek Olczak
Chief Executive Officer

Letter from our Chief Financial Officer

Accelerating the pace of change: committed to making cigarettes obsolete



Accelerating the pace of change at PMI requires continued dialogue with multiple stakeholders, including governments and investors, to unlock financing capacity, increase innovation and technology development, encourage public support, and incentivize an industry shift away from combustible products.

Despite being well on our way to delivering a smoke-free future, we still have some distance to travel, as our combustibles business still represents the majority of our revenues. Although this is shifting rapidly—in 2021 almost 30 percent of our annual adjusted net revenues derived from smoke-free products, with the aim to derive at least 50 percent by 2025—the operating cash flows generated by cigarettes serve an essential role, supporting ongoing investments in the growth of smoke-free products and in building new capabilities in wellness and healthcare.

Staying competitive in the cigarette category during this interim period provides the infrastructure needed to support our smoke-free growth, allowing us to create a future where cigarettes no longer exist. Notably, where permitted, it provides the primary way we engage and connect with adult smokers and trade partners to raise awareness of smoke-free products and explain why they are a better option than continued smoking.

Even though selling off our cigarette business would make our company achieve its smoke-free ambition faster, it would not resolve the cigarette problem—it would just become somebody else's problem to solve. Our aim is not only to make our company smoke-free, but to make cigarettes obsolete. To achieve this, we will continue to responsibly and coherently sell cigarettes taking a consistent, disciplined, and steady approach to one day completely leaving them behind. While contradictory on the surface, this is a necessary trade-off that is vital to expanding our leadership in smoke-free products and driving a successful industry transition. We are convinced that impactful and systemic change can be best achieved by transforming from the inside out, engaging constructively with different parts of society, and ultimately replacing cigarettes with smoke-free products.

"We are convinced that impactful and systemic change can be best achieved by transforming from the inside out, engaging constructively with different parts of society, and ultimately replacing cigarettes with smoke-free products."

The relationship between the sources of tension will disappear over time, as our legitimate ambition to maintain market share in the declining combustible product category does not mean we aim to continue selling cigarettes in the long term. Our purpose is clear: Our smoke-free business is our focus area of growth, as these are the products needed to enable our transformation, and, most importantly, to help make cigarettes obsolete. We intend to continue expanding our leadership, portfolio, volumes, and markets for our smoke-free portfolio to ensure we broaden adult smokers' access to these products, maximize the benefits and minimize unintended consequences—with the intention of being present in 100 markets by 2025.

Strategy, Finance, and Sustainability—the three teams I lead—play a critical role within today's PMI and have the capacity to establish a roadmap for success that not only responds to short-term needs but also accounts for medium- and long-term impacts. To achieve our ambitions, it has been of paramount importance for our entire organization to recognize that sustainability and financial performance are mutually reinforcing and part of the same strategy. That is why integrated reporting is a top priority: It allows all our employees, including management, as well as the company's Board, our shareholders, and other stakeholders to understand how our financial and nonfinancial performance are interrelated.

A great example of the synergies from integrating sustainability into strategy, and making ESG issues a core part of our business priorities, was the publication of our first business transformation-linked financing framework in 2021, which integrates the company's smoke-free transformation into its financing strategy. Linking our most material sustainability priorities to part of our financing strategy strengthens our commitment and underscores to all our stakeholders the seriousness of our ambitions. I believe this not only reinforces our promise to reinvent our company but also invites investors and lenders to engage with and support our relentless work to accelerate the end of smoking, continue to grow our smoke-free business, and use our strong capabilities to develop products in wellness and healthcare that can have a net positive impact on society.

"Our purpose is clear: Our smoke-free business is our focus area of growth, as these are the products needed to enable our transformation, and, most importantly, make cigarettes obsolete."

The subsequent announcement of our company entering into an agreement for its first business transformation-linked financing instrument—a new revolving credit facility for an aggregate amount of USD 2.5 billion—was testament to the success of our integrated approach. I was pleased with the broad engagement and support of investors, lenders, and bankers. This approach is critical to helping us continue to drive change within our company. Further, I believe this kind of engagement can encourage industry transformation by demonstrating the benefits of our company's unique value proposition.

Industry disruption only looks easy in hindsight. At present, we are in mid-stride: with one foot in our past, operating in a fiercely competitive legacy cigarette business, and one foot in our bold future, building an entirely novel and improved category of products. We recognize the magnitude of the challenge and remain committed to continuing to lead, tracking progress, and reporting on it transparently to ensure cigarettes become obsolete as soon as possible.

Emmanuel Babeau
Chief Financial Officer



OVERVIEW

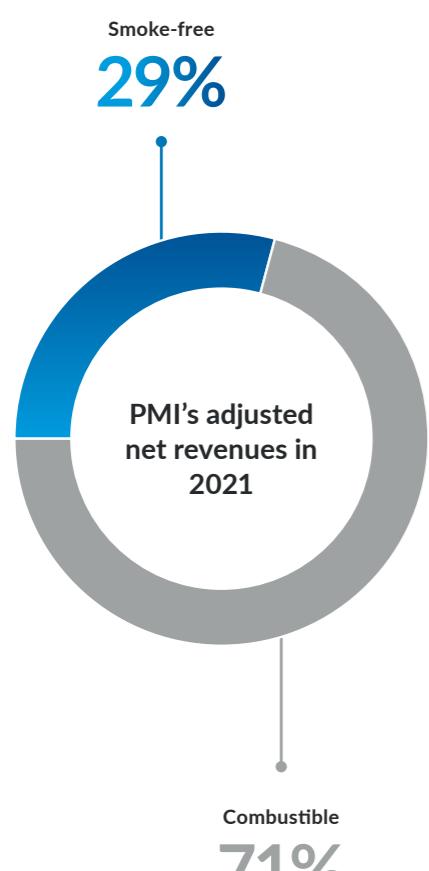
- Our company **18**
- Global trends **20**
- Industry trends **22**
- Stakeholder engagement **28**

Our company

PMI is a global company selling products in around 180 markets and employing approximately 68,500 people worldwide.¹

Since 2016, we have set a new course for the company—staking our future on replacing cigarettes with scientifically substantiated, less harmful alternatives. To date, we are the only company within the traditional international tobacco industry to have committed to phasing out cigarettes, encouraging adult smokers who would otherwise continue to smoke to switch completely to better alternatives. In addition to expanding our leading position in the smoke-free category, we now also seek to broaden our value proposition to develop products in wellness and healthcare with the aim of having a net positive impact on society.

Our product portfolio



Smoke-free products

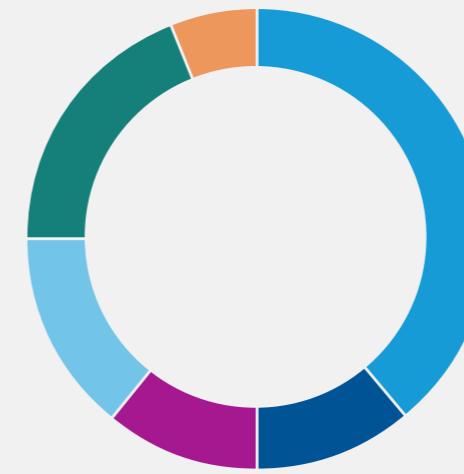
Our smoke-free product portfolio is composed of two main product categories. Our leading smoke-free product is a heated tobacco product commercialized under the IQOS brand, available for sale in 68 markets as of year-end 2021. IQOS uses sophisticated electronics to heat tobacco in a controlled manner to release flavors and nicotine without combustion. Our e-vapor product, commercialized under the IQOS VEEV brand, generates an aerosol by heating an e-liquid formulation. IQOS VEEV was available for purchase in seven markets as of year-end 2021. We also now have a small presence in nicotine pouches, commercialized under the Shiro brand. This product contains no tobacco and is used by being placed beneath the upper lip.



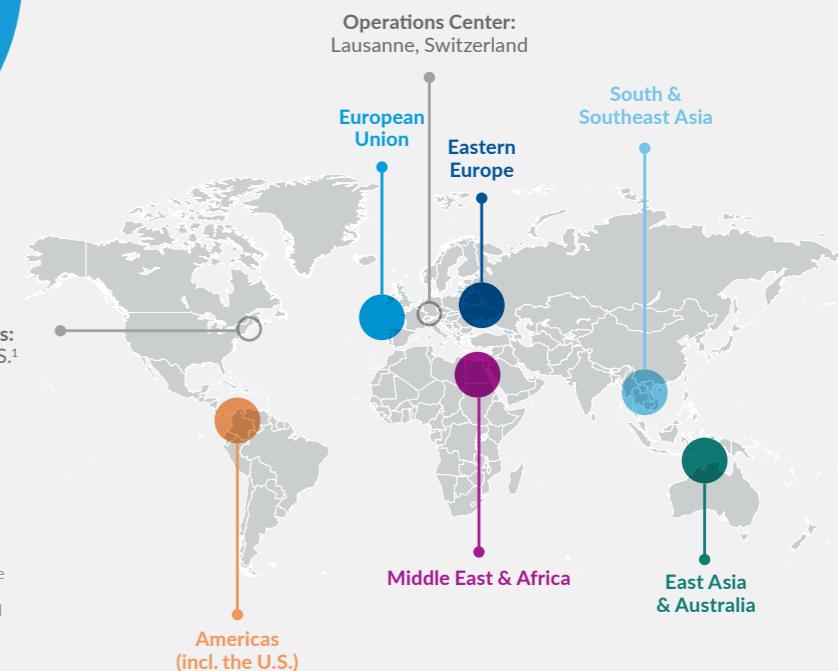
Combustible products

To accelerate our transition away from cigarettes and encourage the industry to follow this path, it is necessary to maintain our competitive position in the cigarette market during this transition phase (read our [Chief Financial Officer's letter](#) to learn more). Our cigarette brands are sold in around 180 markets, in many of which they hold the number one or number two market share position. Our portfolio includes a wide range of premium, mid-price, and low-price brands, including Marlboro, L&M, Chesterfield, Philip Morris, and Parliament, which are among the 15 most popular brands in the international cigarette market (which excludes China and the U.S.).

Total 2021 adjusted net revenue by PMI region

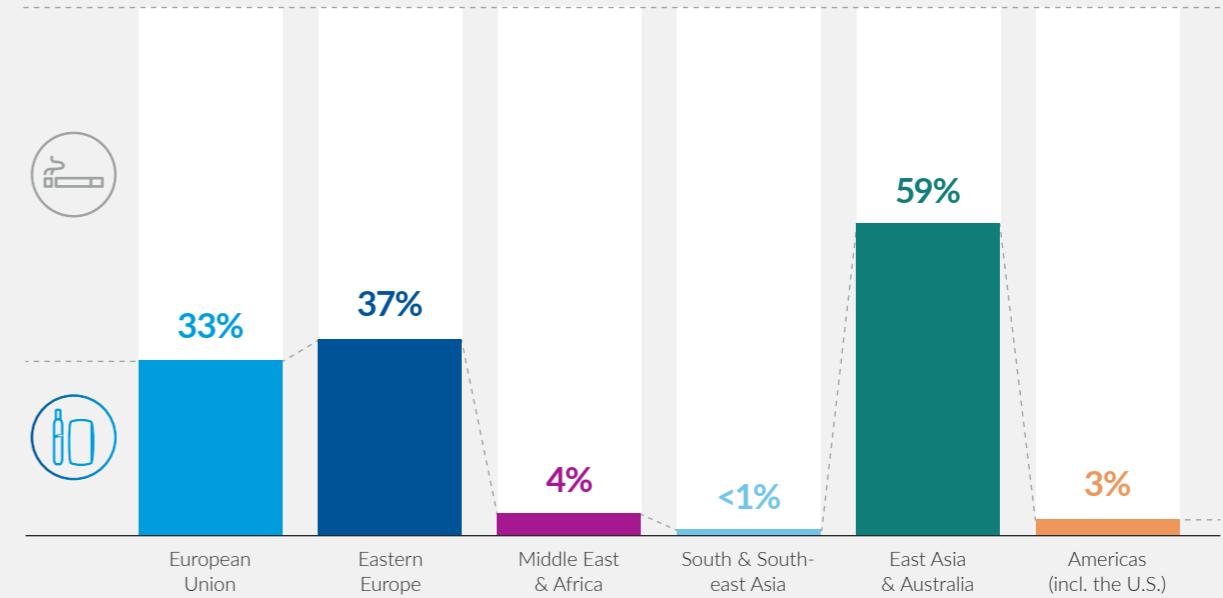


European Union	39%
Eastern Europe	11%
Middle East & Africa	11%
South & Southeast Asia	14%
East Asia & Australia	19%
Americas (incl. the U.S.)	6%



¹ In the fourth quarter of 2021, we announced that we will be relocating our PMI corporate headquarters from New York, New York, to Stamford, Connecticut. This move is expected to be completed by the third quarter of 2022.

Proportion of 2021 adjusted net revenues from smoke-free products in each PMI region



¹ Incorporating 2021 acquisitions of Fertin Pharma, Vectura Group, and OtiTopic, PMI employed approximately 69,600 people worldwide at year-end 2021.

We operate on a global scale in a fast-paced world. Our long-term success requires that we monitor, anticipate, and respond to the challenges and opportunities shaping our reality today and in the future.

Global trends

Healthy lifestyles

Society is more attuned to mental well-being and physical health, leading to a push for more conscious choices, active lifestyles, support, and better nutrition. Businesses are expected to expand and shift their portfolios to incorporate new services and product offerings that contribute to better health, paying attention to the unique needs of younger generations and older workers. To attract, retain, and optimize top-level talent, employers must prioritize mental and physical well-being in the workplace, particularly as remote and hybrid work becomes more prevalent.

Climate and nature urgency

Climate change, biodiversity loss, deforestation, water insecurity, and other ecological crises threaten more than supply chains and physical infrastructure; they endanger progress and business growth by exacerbating systems-level disruptions that affect our stakeholders. Policy, regulation, civil society, and market forces continue to spur a transition to low-carbon solutions, investments in renewable energy, and actions to safeguard ecosystems. These also focus on embedding eco-design and circular considerations at the early stages of product development.

Inequality

Globalization, rapid economic growth and widespread improvements in livelihoods in recent decades have failed to close—and have even exacerbated—the deep divides within and across countries. Worsening inequalities have in turn triggered civil society to become more aware of—and more vocal about—social injustices. Ongoing scrutiny and policy developments on issues pertaining to social inequality and human rights have highlighted the role business can play by ramping up diversity, equity, equality, and inclusion efforts.

Erosion of trust

Social cohesion and a shared reality founded on facts grounded in science and data are increasingly challenged in an ever more digital world. The rising tides of distorted truth, misinformation, and polarization also impacts businesses, which cannot succeed in failed societies and must work with all stakeholders to foster innovation, develop solutions, and drive impact. Companies are expected to demonstrate irreproachable behavior and radical transparency, providing trustworthy information on their impacts along their value chain.

Technological progress

New technologies, including in robotics, artificial intelligence, and virtual reality, are emerging rapidly. Companies are implementing automation and digital solutions that increase transparency, maximize efficiencies, and create opportunities for robust R&D activity and product innovation. Boosted by a rapid flow of data and information, the pace of change is unprecedented, with wide-reaching implications across industries. Within this context, concerns and risks around data privacy and cybersecurity are on the rise, and many actors are working to enhance data and infrastructure protection.

Global trends intersect with our strategies and initiatives and inform how we interact with the external environment. Several trends discussed here existed before COVID-19 but have been amplified and accelerated by the pandemic, causing disruptions to supply chains and business operations and making them even more relevant.

Drivers	Capitals impacted	Stakeholder expectations	How we are responding
<ul style="list-style-type: none"> Demographic shifts Consumer preferences Public health policy and regulation 	     	<ul style="list-style-type: none"> Consumers: Healthier products Employees and supply chain: Occupational health and safety; Mental health and well-being; Work-life balance Civil society: Public health Policymakers and regulators: Public health; Quality of life; Social welfare Shareholders: Product offerings in line with consumer expectations to protect and expand market share 	<ul style="list-style-type: none"> Portfolio shifts driven by consumer centricity (transition to a smoke-free future, innovation in wellness and healthcare) Workplace health and well-being programs and initiatives
<ul style="list-style-type: none"> Civil society and consumer activism Investor focus and the expansion of impact investing Environmental policy and regulatory developments Impending institutional consensus on nature-related measurement and reporting frameworks 	     	<ul style="list-style-type: none"> Consumers: Environmentally friendly and circular products Employees and supply chain: Job security and business continuity amid the climate crisis Civil society: Greenhouse gas (GHG) emission reductions; Protection and preservation of natural ecosystems; Resource efficiency Policymakers and regulators: Science-based approach to target setting and related disclosures; Environmental welfare; Environmental regulation enforcement Shareholders: Future-proof business model; Useful environmental disclosures; Low-carbon solutions; Investments in renewable energy 	<ul style="list-style-type: none"> Integrated risk assessments and robust GHG emissions accounting to define new—and validate existing—strategies Transparent, strategic, and science-based target setting and disclosure of progress Investing in—and developing—scalable solutions that produce co-benefits for climate and nature Supporting and partnering with experts, science-based initiatives, and advocacy organizations
<ul style="list-style-type: none"> Civil society and consumer activism Investor focus and expansion of impact investing Human rights and other societal policy and regulatory developments Impending institutional consensus on social-related measurement and reporting frameworks 	     	<ul style="list-style-type: none"> Consumers: Inclusive and equal access to solutions, products, and services; Socially responsible products Employees and supply chain: Inclusive and equal access to opportunities; Workplace free from discrimination and harassment; Equal pay and living wage Civil society: Climate justice; Access to jobs Policymakers and regulators: Social welfare, including access to meaningful jobs and protection of human rights Shareholders: Organizations free from human rights controversies that appropriately manage governance concerns around inequalities in the workplace 	<ul style="list-style-type: none"> Expanding the scope of human rights impact assessment Promoting living incomes and wages throughout the value chain Collaborating across the value chain and broader business community to address inequalities in our supply chain Providing a workplace where employees have equal pay for equal work, equal access to opportunities and are free from discrimination and harassment
<ul style="list-style-type: none"> Mistrust of institutions Political turmoil Diminishing confidence in science Expectation of increased transparency Social media platforms 	     	<ul style="list-style-type: none"> Consumers: Transparency on the impact of products and operations on health, society, and the environment; Scientifically substantiated claims Employees and supply chain: Strong company culture; Clear business purpose Civil society and supply chain: Traceability; Alignment of priorities with public benefit; Transparency Policymakers and regulators: Standards and norms for quality and robustness of data and related requirements for increased transparency Shareholders: Consistent, reliable, and comparable ESG data and useful information 	<ul style="list-style-type: none"> Revised and expanded Statement of Purpose Explicitly linked financing instruments to ESG performance Reporting against most relevant and widely used sustainability standards to promote transparency Developed an ESG KPI Protocol with a path to provide full assurance on nonfinancial data Introduced model to link ESG performance transparently and objectively to executive compensation
<ul style="list-style-type: none"> Shift to online commercialization channels Impact of automation on employment Growing availability of data and information Cybersecurity and data privacy concerns 	     	<ul style="list-style-type: none"> Consumers: Consumer data protection; R&D for new solutions and better products Employees and supply chain: Adapting workforce skills and capabilities; Job security; Protection of employee data Civil society and supply chain: Increased supply chain connectivity, transparency, and efficiency through emerging technologies Policymakers and regulators: Data protection and prevention of cybersecurity threats; Policymaking on technology and innovation Shareholders: Companies leverage technological advancements to drive product innovation, commercialization, and operational efficiency 	<ul style="list-style-type: none"> Investing in new technologies and acquisitions to accelerate our company's transformation, expand smoke-free product offerings, and drive progress on sustainability priority areas Data-based decision-making and investment in targeted operational improvements Strengthening cybersecurity and data privacy policies and practices Employee lifelong learning and upskilling offers

Industry trends

Market trends

Overview of the global nicotine business

Products within the global tobacco and nicotine business market fall into three main categories: combustible products, smoke-free products, and therapeutic cigarette replacement alternatives (often known as nicotine replacement therapies or NRTs).

- Combustible products (e.g., cigarettes, fine-cut tobacco, pipe tobacco, cigars, and cigarillos) burn tobacco to deliver nicotine.
- Smoke-free products deliver nicotine without combustion. These products include heated tobacco (also known as heat-not-burn), e-vapor, hybrid products (combining features of heated tobacco and e-vapor products), and oral tobacco and nicotine products such as snus and nicotine pouches. By eliminating combustion, these products present, or have the potential to present, less risk of harm to adults who switch to them versus continued smoking.
- Therapeutic cigarette replacement alternatives, which include nicotine gum and patches, aim to help smokers quit smoking. They deliver nicotine and require pharma approval process to be followed; further, in some countries, their use is subject to prescriptions from medical professionals.

Prevalence of tobacco smoking worldwide

Combustible products currently represent the largest share of the global nicotine market, with cigarettes remaining the dominant tobacco product used by nicotine consumers worldwide. The prevalence of smoking is decreasing steadily around the globe, supported by public health policies and strategies focused on discouraging initiation and encouraging cessation. Despite this, an estimated 1.1 billion people worldwide still smoke cigarettes, and due to population growth, that number is projected to remain relatively stable for the foreseeable future.¹

¹ WHO Global Report on Trends in Prevalence of Tobacco Smoking 2015.

² WHO Global Report on Trends in Prevalence of Tobacco Use 2000–2025, third edition (December 2019).

³ Estimates based on PMI financials and third-party sources (including Euromonitor International).

Projected number of smokers in 2025

The World Health Organization (WHO) projects a decline in smoking prevalence (age 15+), from 21.5 percent in 2010 to an estimated 17.1 percent in 2025.² At the same time, the global adult population is growing by around 70 million people per year. The net effect of this population growth and declining smoking prevalence is a forecast of just under 1.1 billion smokers in 2025—essentially the same as in 2010. Even if the faster reduction in smoking prevalence that WHO member states are targeting is achieved (i.e., a 30 percent reduction in the prevalence of tobacco use by 2025 versus 2010¹), we estimate there will still be around 930 million smokers in 2025.

Emergence of smoke-free alternatives³

In recent years, the development, commercialization, and subsequent adoption of various smoke-free products have led to rapid growth of the category. Overall, we estimate this segment grew by 3 points since 2018 to reach over 7 percent of the international nicotine retail value (which excludes China and the U.S.) in 2021.

R&D on smoke-free products that do not involve combustion, including pouches, e-cigarettes, and heated tobacco, extends back more than two decades. These efforts were driven by a combination of increased awareness of the harms of smoking, evolving technologies, discoveries of different ways to deliver nicotine, and a better understanding of behaviors connected to smoking. The reduced risk potential of these products, coupled with their availability and increased acceptability, is leading smokers to switch away from combustible tobacco products and never come back to smoking. The potential of smoke-free products to contribute to reducing population harm and, eventually, benefit public health, has led to the introduction of progressive public health strategies based on the concept of tobacco harm reduction. These strategies successfully complement traditional efforts, which encourage cessation and discourage initiation, in accelerating smoking prevalence decline.

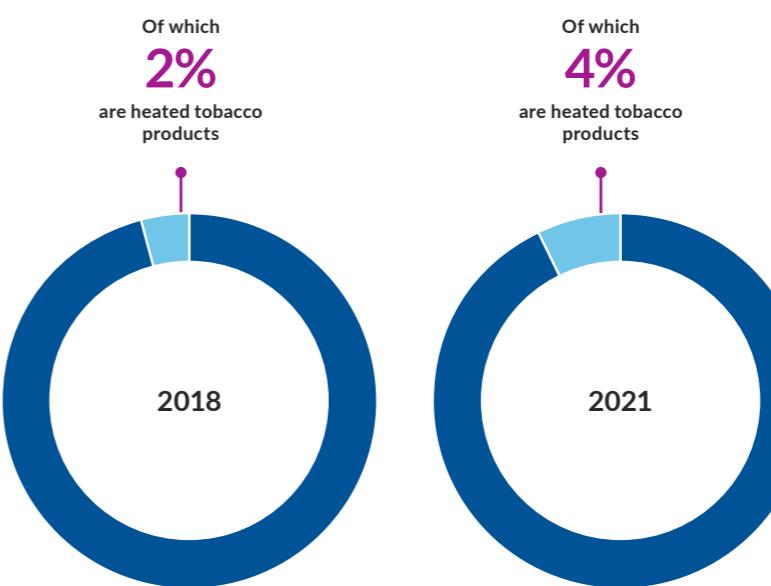
Heated tobacco products have been commercialized for many years but did not gain commercial traction until the introduction and world-wide expansion of IQOS. Following this technological breakthrough, other companies also began to commercialize heated tobacco products. The heat-not-burn segment volume grew in the international market (which excludes China and the U.S.) at a compound annual growth rate (CAGR) of over 29 percent between 2018 and 2021, driven both by increased adoption in the first launch markets as well as geographical expansion. This category is the largest smoke-free category by both retail value and volume in the international market (which excludes China and the U.S.).

The e-cigarette was invented in 2003 in China, and—after more than a decade of relatively limited success—the broader e-vapor category has recorded significant growth, particularly in the U.S., Canada, and certain European markets.

The oral tobacco product category volume, including products containing tobacco leaf (e.g., chewing tobacco, snuff) and modern products such as nicotine pouches, grew to reach almost 29 percent CAGR over the past three years in the international market, boosted by the significant growth of oral nicotine pouches. Nicotine pouches have emerged as credible smoke-free products in recent years, most notably in markets with a history of oral tobacco consumption, such as the U.S. and Scandinavia. While the category remains small outside these markets, it is growing.

Within the nicotine industry, the strong growth of smoke-free products over the past three years, including heat-not-burn and e-vapor, is replacing combustible products.

Industry volume split 2018–2021



Note: See [glossary](#). Data exclude China and the U.S.

Competition

As in other consumer goods sectors, manufacturers in the tobacco industry compete primarily on product quality, brand recognition, brand loyalty, taste and sensory experience, R&D, packaging, customer service, marketing, advertising, and retail price.

Smoke-free products

There is increasing competition in relation to smoke-free products, with tobacco manufacturers shifting their resources toward the development, acquisition, and commercialization of such products, particularly heated tobacco products, e-vapor products, and nicotine pouches. Beyond this, some manufacturers are entering into strategic collaborations to explore growth opportunities in products that do not contain tobacco or nicotine.

To date, competition in the heated tobacco category is primarily among manufacturers of combustible tobacco products. With regard to e-vapor, the “open” products category (products which feature a chamber that can be refilled with e-liquid) is heavily fragmented and relatively commoditized among small or local manufacturers. In contrast, global tobacco manufacturers are increasingly present in the “closed” products category (with disposable products or reloadable systems with pre-filled cartridges), which is evolving rapidly with a number of startups.

Oral tobacco and oral nicotine products are mainly produced by the major tobacco manufacturers and traditional oral tobacco manufacturers. Key players are building internal capabilities in the oral tobacco and nicotine segment or acquiring smaller existing players in this category.

Despite advances in science and technology, the business strategy of all international cigarette manufacturers—with the exception of PMI—is focused on continuing to grow cigarette sales, while expanding their portfolios to offer (in addition) smoke-free alternatives.

Combustible cigarettes

The global combustible cigarette sector includes four large international manufacturers—British American Tobacco (BAT), Japan Tobacco (JT), Imperial Brands (IMB), and PMI—along with two major manufacturers focused primarily on their respective domestic markets: The China National Tobacco Corporation (CNTC) in China and Altria Group, Inc. in the U.S. (Altria is the parent company of Philip Morris USA, which operates exclusively in the U.S. and is not affiliated with Philip Morris International).

Our perspective at PMI

At PMI, we aim to base our success on a future in which we no longer make or sell cigarettes, the most harmful form of nicotine consumption. In stark contrast with our competitors, PMI’s value proposition is not to expand its portfolio of both combustible and smoke-free products and offer more choice to consumers. Our goal is to lead an industry-wide transformation whereby cigarettes are phased out completely.

Our strategy is centered on researching and developing better products, promoting broad access to them, and working to ensure these products replace cigarettes and make smoking obsolete. To achieve this, we are actively shifting and reallocating resources, setting ambitious goals connected to this strategy, and transparently reporting on our progress.

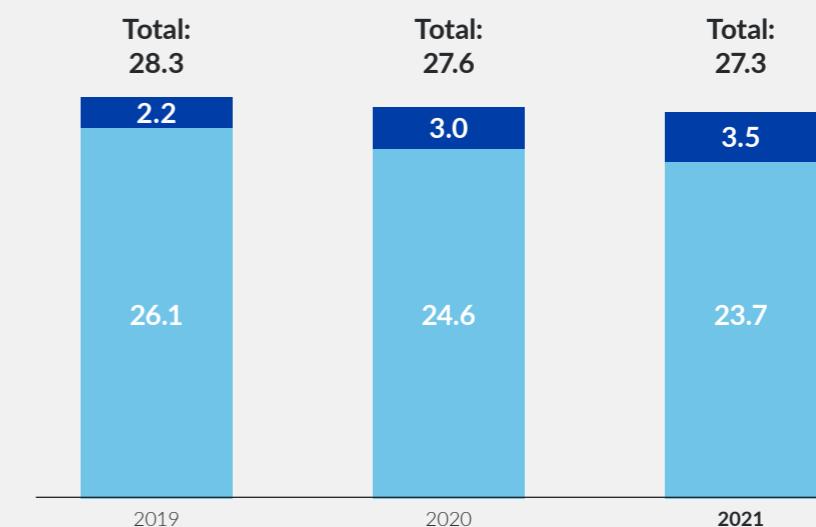
By 2025, we expect that less than 50 percent of our adjusted net revenues will derive from cigarette sales. In 2021, PMI smoke-free products represented 29.1 percent of our annual adjusted net revenues and 12.8 percent of our total shipment volume.

Growing interest in the smoke-free product category from other companies could be an opportunity and lead to the acceleration of the global smoke-free agenda.

As recent investments demonstrate, our long-term plan extends beyond smoke-free into products outside the tobacco and nicotine space. Our 2021 acquisitions of Fertin Pharma, OtiTopic, and Vectura will allow us to better leverage PMI’s capabilities, accelerate the pace of our transformation, and cement the foundation of our future in wellness and healthcare—all with the ultimate goal of having a net positive impact on society.

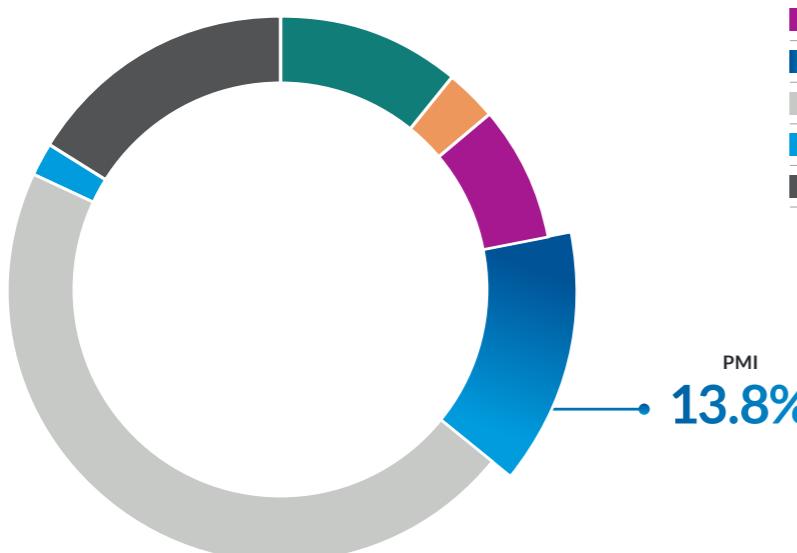
PMI total international share (in %)

Heated tobacco units
Cigarettes



Source: PMI financials or estimates. International market excludes China and the U.S.

Our global market share 2021, including cigarettes and heated tobacco units



BAT	~11%
IMB	~3%
JT	~8%
PMI	13.8%
CNTC	~46%
Altria Group, Inc.	~2%
Other	~16%

Note: Global market includes China and the U.S.
Source: PMI financials or estimates.

Regulation and taxation

The harms associated with smoking have led policymakers, legislators, and regulators to impose rigorous restrictions on cigarettes, including high excise taxes, minimum age requirements, and designated areas for use. Additional restrictions and mandates apply to packaging design and health warnings, ingredients and flavors, marketing and advertising, and promotions and other forms of sponsorship.

Much of the regulation that shapes the tobacco industry's operating environment is driven by the WHO's Framework Convention on Tobacco Control (FCTC) and its [MPOWER measures](#). The FCTC has established a global agenda to reduce the prevalence of tobacco use and nonsmokers' exposure to tobacco smoke.

For decades, public health strategies to reduce tobacco-related morbidity and mortality focused primarily on preventing smoking initiation and encouraging cessation. With the introduction of smoke-free products and the recognition of their potential to accelerate the decline of smoking prevalence and contribute to public health, the need for an updated approach to tobacco regulation has become urgent. While there is currently no global consensus on how best to regulate or tax smoke-free products, a growing number of authorities recognize that the risk profile of these products differs from cigarettes and so should be regulated differently in order to promote their adoption as a better alternative for those smokers who would otherwise continue to smoke.

Our perspective at PMI

Government regulation of all nicotine-containing products is essential.

PMI supports a comprehensive approach that discourages initiation and promotes cessation, supplemented by commonsense regulation that encourages adults who smoke and would not otherwise quit to switch completely to smoke-free alternatives that have been scientifically substantiated to be a better choice than continued smoking.

We advocate for a comprehensive and risk-proportionate regulatory framework that recognizes that not all tobacco- and nicotine-containing products are the same. Regulation and taxation should subject the most harmful products to the most restrictive measures while encouraging those adults who would otherwise continue to smoke to switch to the less harmful alternatives now available. Such an approach would significantly accelerate the phasing out of combustible products and promote public health.



Illicit trade prevention

The increasingly interconnected global economy provides more opportunities for criminal networks engaged in illicit activities such as the sale of counterfeit products, wildlife smuggling, narcotics, human trafficking, and excise fraud.

The illicit tobacco trade provides a cheap and unregulated supply of tobacco products. It undermines efforts to reduce smoking prevalence, damages legitimate businesses, stimulates organized crime, increases corruption, and reduces government tax revenue. It is estimated that illicit trade accounts for as much as 10 to 12 percent of global cigarette consumption and that governments worldwide are losing USD 40 to 50 billion in tax revenues each year as a result.¹

Many countries have initiated or are considering actions to prevent the illicit trade of tobacco products. In 2012, the FCTC adopted the Protocol to Eliminate Illicit Trade in Tobacco Products, which includes supply chain control measures such as licensing, enforcement in free trade zones, and the implementation of tracking and tracing technologies. The protocol came into force in September 2018, and parties to it have started implementing its measures via national legislation.

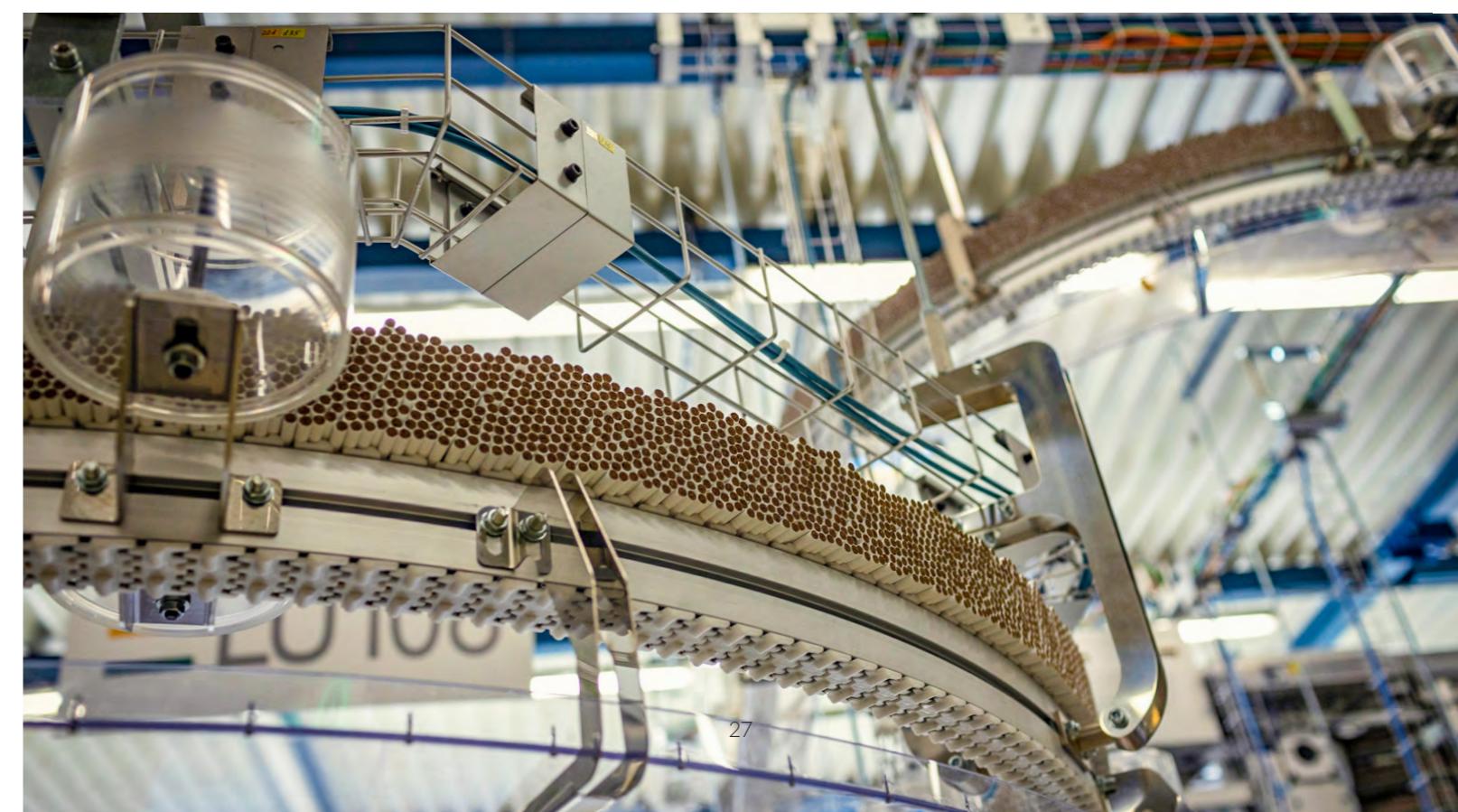
¹ U.S. Department of State, *The Global Illicit Trade in Tobacco: A Threat to National Security*, 2015

Our perspective at PMI

For PMI, eliminating the illicit tobacco trade has been a long-standing priority.

We focus our efforts on securing our supply chain and protecting our products.

Read more about our approach and progress in 2021 [here](#).





Stakeholder engagement

PMI regards stakeholder engagement as fundamental to the creation of shared and sustainable value.

While PMI's transformation is unwavering, we recognize that we cannot complete the journey alone. The kind of systemic change PMI is driving can only be achieved through a collaborative multistakeholder approach, a fact we recognize in our Statement of Purpose. PMI's reputation is based on the perceptions of its various stakeholders. Our ability to build and maintain trust and legitimacy relies on consistency and coherence—on ensuring our words match our actions. Remaining open to dialogue with our stakeholders allows us to understand their expectations and respond accordingly. Continuous engagement also allows us to build a shared understanding of contingency issues, proactively respond to concerns, identify potential areas of compromise, stay abreast of global trends and market expectations, and find solutions that are good for our stakeholders and business. We are committed to driving transparent and responsible change, and continuously work to earn the trust and confidence of our stakeholders.

Our periodic sustainability materiality assessments provide us with valuable insights and allow us to gauge the relevance of different topics for key stakeholder groups.

Our stakeholder engagement incorporates both structured and ad hoc interactions. Above all, it is guided by transparency, integrity, and respect and governed by our Guidebook for Success and its accompanying policies ("Principles and Practices"), summarized in this [overview of our engagement principles](#).

Constructive dialogue is essential to moving society forward. To achieve the collective action required to solve the world's most pressing challenges, we must include all voices, bringing together people with differing opinions, scrutinizing facts, and finding common ground upon which to build. Read more [here](#) on the value of embracing dialogue to disarm hate.

Stakeholder groups	Why we engage	How we engage	Key topics discussed
Consumers Adult smokers and nicotine consumers	Adults who smoke and otherwise would not quit are at the heart of our business transformation. We aim to persuade as many of them as possible to replace cigarettes with scientifically substantiated better alternatives. We do this by taking a consumer-centric approach to developing and commercializing better alternatives that meet their preferences and needs. We also raise awareness among these adult smokers of smoke-free products, how they work, and their benefits compared with cigarettes so as many as possible will switch to them.	<ul style="list-style-type: none">Digital interfacesSurveys and questionnairesHotlines and call centersConsumer eventsStores and e-commerce	<ul style="list-style-type: none">Product innovationAccess to smoke-free productsBenefits of smoke-free products compared with continued smokingQuality and services
Employees Employees, management, work councils, trade unions	Our employees are drivers of change and the ambassadors of our purpose. Their engagement and dedication are essential to making PMI's vision and strategic goals a reality. We continuously communicate with and listen to our employees and strive to provide them with opportunities for growth and development within an inclusive workplace.	<ul style="list-style-type: none">Regular surveysGroup-wide intranet and internal platformsPerformance and development reviewsInternal events and conferencesTraining programsRecognition schemesOngoing dialogueEmployee resource groups	<ul style="list-style-type: none">Company strategy and performanceDiversity, equality, equity, and inclusionHealth and safetyMental health and well-beingTalent attraction, development, and retention
Supply chain and business partners Farmers and farmworkers, farmers' associations, contractors, suppliers, wholesalers, business partners, third party-operated manufacturers	Many of the people working in our supply chain rely on PMI for a substantial portion of their income. PMI aims to treat its suppliers fairly and ethically and is dedicated to acting as a good partner to other companies, large and small, that help us achieve our ambitions. Collaborating with others across our supply chain helps us to address social and environmental challenges and make progress against our strategic goals.	<ul style="list-style-type: none">Compliance, audits, and risk assessmentsStrategic partnershipsSupplier forums and eventsMeetings, workshops, and training sessionsOn-site visitsDigital retailer interface	<ul style="list-style-type: none">Supply and delivery challengesOpportunities for growth and innovationEnvironmental and social impact of supply chainResponsible commercialization practices
Finance community PMI shareholders, equity and fixed income investors, lending institutions, insurance companies, financial analysts, rating agencies	Engaging with the finance community is key to promoting a comprehensive understanding of PMI's unique value proposition, strategy, and performance. Furthermore, investment decisions increasingly integrate environmental, social, and governance (ESG) criteria, and we are confident in the business opportunity our transformation brings.	<ul style="list-style-type: none">Annual shareholder meetingEvents and conferencesEarnings calls, Investor Day, and ESG webcastsPresentations, reports and publicationsRoadshowsESG ratings and rankingsFinancing instrumentsPerception studies	<ul style="list-style-type: none">Business transformation strategyFinancial and ESG performanceMarket and industry dynamicsCapital allocationGovernance and remunerationSustainability priorities
Regulators Policymakers, intergovernmental organizations, regulatory bodies, standard setters, government authorities (including legislators), customs organizations	Dialogue with national and local governments and regulators allows us to understand their priorities and concerns and share our views, objectives, and scientific findings. We engage with governments, regulators, and legislators in developing proposed legislation and regulations that may impact a smoke-free future. The right regulation would accelerate the end of smoking, foster innovation, and minimize unintended consequences.	<ul style="list-style-type: none">Ongoing dialogueForums and eventsPublic consultationsReports and publicationsTrade associationsTraining and presentations	<ul style="list-style-type: none">Product health impact and access to smoke-free productsRegulatory complianceFiscal and regulatory frameworksSustainability priorities and performance
Public health community Scientific community, academia, researchers, public health agencies	Engaging with the public health community is of utmost importance. By conducting our R&D with scientific rigor, sharing our findings, and asking the community to scrutinize our products and the growing body of scientific evidence surrounding them, we aim to engage constructively on this topic and collectively seize the immense opportunity smoke-free products present for advancing public health within the current generation of adult smokers.	<ul style="list-style-type: none">Conferences, forums, and eventsReports and publicationsArticles and studiesDedicated scientific website (PMIscience.com)Online platforms for data transparency and reproducibility in scienceApplications and submissions	<ul style="list-style-type: none">Product innovationProduct health impactsScientific research
Civil society Academia, local communities, civil society organizations, NGOs, multistakeholder organizations and initiatives, media	From best practices and information exchanges to close partnerships, engaging with civil society actors helps inform our strategy, define our priorities, and advance sustainable solutions to common challenges.	<ul style="list-style-type: none">PartnershipsCommunication campaignsSocial contributionsOpen dialogue	<ul style="list-style-type: none">Sustainability priorities and performanceBusiness transformationProduct innovation



STRATEGY

Transforming for good	32
– Our business transformation	32
– PMI's Business Transformation Metrics	34
– Anchoring sustainability at the core of our strategy	38
– Setting ambitions and targets	44
Our 2025 Roadmap	46
PMI Sustainability Index	47
Creating value	48
Letter from our Chief Sustainability Officer	50
Corporate governance and management	52
Risk management	56

Transforming for good

We are striving to become a company that has a net positive impact on society.

This ambition starts with researching, developing, and commercializing less harmful alternatives to cigarettes for those adults who otherwise would continue to smoke, ultimately allowing us to phase out cigarettes and become a fully smoke-free business. As a next step, we are expanding our offerings to include products that fill critical unmet needs within the wellness and healthcare space.

To achieve our purpose, a radical transformation of our business is required. Our strategy is to responsibly transition from a cigarette company into a world-leading smoke-free business while simultaneously exploring adjacent avenues of growth in wellness and healthcare. Our North Star is to create a net positive impact that benefits our company, shareholders, consumers, and society.

Our business transformation

Transforming our company is not only about substituting one product with a new one. It also requires transforming our entire value chain, as well as the way we engage with society. This requires a holistic review and overhaul of our entire business model and value proposition, which brings with it new opportunities as well as challenges throughout all aspects of our business.

Sustainability stands at the core of PMI's transformation and helps address some of the challenges resulting from the transition, while spurring innovation and better positioning the company for success over the long haul. The complexity of our strategy comes from simultaneously managing the impacts of two value chains—the one we are aiming to move away from (our cigarette portfolio) and the one we are moving towards (our smoke-free portfolio)—while also managing the impacts of the transition itself.

While a transformation of this magnitude and complexity is not achieved overnight, we are committed to making it happen as fast as possible.

Product transformation

Innovating for better products



The most visible part of our transformation is that related to our product lines. Over the past decade and a half, we have harnessed scientific and technological advances to develop alternatives to cigarettes that are scientifically substantiated to be a better choice for adult smokers than continued smoking. Now, while continuing to improve and expand our portfolio, we are working to raise awareness about the benefits of these products in relation to continued smoking, which contributes to increasing access by adult smokers. In 2016, our company established its purpose: to phase out cigarettes by replacing them with less harmful alternatives as quickly as possible to achieve a smoke-free future. With strong progress toward becoming a majority smoke-free company by 2025 in terms of net revenues, we are beginning to explore adjacent avenues of growth that will take our business into wellness and healthcare, with an eye to fulfilling unmet consumer and patient needs.

Internal transformation

A new organization and value chain



Since announcing our transformation, we have undergone a meaningful reorganization, and helped our employees build the skills and capabilities needed to contribute fully to our business transition, while also investing in recruiting new talent and acquiring the capabilities needed to drive a successful transformation. Read our case study on expanding our value creation model [here](#).

We have also incorporated new ways of working to become an increasingly digitalized, project-based organization, focused on consumer centricity, agility, and data-driven decision-making.

Beyond our own operations, every step of our value chain is being transformed to serve our company purpose. We recognize the challenges these changes pose and are actively helping all those impacted by our transformation (in our direct and indirect operations) to best manage the transition.

External transformation

Changing the way we engage with stakeholders



The way we engage with external stakeholders is critical to achieving our purpose. Our ability to successfully transform depends not solely on us—working together with different parts of society, we can create a paradigm shift where cigarettes become obsolete.

Continuous engagement also allows us to build a shared understanding of contingency issues, proactively respond to concerns, identify potential areas of compromise, and find solutions that are good for our stakeholders, as well as for our business and long-term success. Read more about our stakeholder engagement efforts [here](#).

Product transformation portfolio

Supporting transformation



Growth priorities



Emerging opportunities





PMI's Business Transformation Metrics

We realize that business transformation is a very company-specific journey, which ESG reporting standards do not properly capture.

To make our progress both measurable and verifiable, we developed our Business Transformation Metrics, a set of bespoke key performance indicators (KPIs) composed of both financial and nonfinancial metrics. They showcase how we are allocating resources away from our traditional cigarette business as we advance toward a future in which we no longer make or sell cigarettes.

By reporting periodically on these KPIs, we enable external scrutiny and allow our stakeholders to assess both the pace and scale of our transformation. Over the years, in response to stakeholder feedback, we have significantly expanded the number of metrics to increase transparency and clarity about our progress. We review them periodically to ensure we continue reporting on meaningful indicators. In 2021, we evolved our reporting efforts to broaden access to smoke-free products worldwide, by introducing an indicator on the number of low- and middle-income markets where smoke-free products are available for sale, replacing our previous reporting on non-OECD markets.



Although year-on-year progress is important to monitor and disclose, sometimes the magnitude of the pace and scale of our progress is lost. Because of that, we have introduced a baseline approach, whereby we can highlight to our stakeholders the sizable cumulative progress that we have made to date. Pre-transformation (in 2015), our combustible product volume totaled 881 billion units, or 99.9 percent of our shipment volume ratio, and, since then it has declined by 26 percent. Over the same period, our smoke-free shipment volume increased from 1 billion units to more than 95 billion units and represented 12.8 percent of our shipment volume in 2021.

Aspirational goals linked to our Business Transformation Metrics give us a clear roadmap and offer our stakeholders visibility into the future we are working toward.

By 2025, we aim to become a predominantly smoke-free company, generating more than 50 percent of our total net revenues from non-combustible products. Within the same time horizon, we aspire to grow our annual smoke-free shipment volume to over 250 billion units, while simultaneously decreasing our combustible product shipment volume to below 550 billion units. This means we aspire for smoke-free products to represent more than 30 percent of our total shipment volume by 2025, and for our combustible product shipment volume to decrease by around 40 percent by 2025 versus a 2015 baseline. We also aim for our smoke-free products to be available for sale in 100 markets by 2025, with more than 50 percent of these being low- and middle-income markets, and for at least 40 million adults to switch to them and stop smoking. Finally, we introduced in 2021 a new aspiration to generate at least USD 1 billion in annual net revenues from wellness and healthcare products by 2025.

Looking ahead

In 2022, we plan to evaluate our published targets to ensure they remain ambitious, reasonable, and achievable, in the context of a dynamic and evolving smoke-free industry. In particular, we will account for the learnings that we have gathered since setting some of these aspirations in the early stages of our smoke-free journey. We will also assess and reflect the impact of recent external factors—including the COVID-19 pandemic and Russia's invasion of Ukraine, where applicable. We intend to communicate any related changes within the next year.

	Business Transformation Metrics	2015 Baseline	2019	2020	2021	2025 Aspirations
R&D	Adjusted R&D expenditure (in millions USD) ^{1*}	423	465	495	566	
	Adjusted R&D expenditure ratio (smoke-free/total) ^{1*}	70%	98%	99%	99%	
	Number of R&D positions (FTEs) ²	n/a	942	934	981	
	Patents granted in IP5 jurisdictions relating to smoke-free products (cumulative, since 2015) ³	n/a	740	1,300	1,770	
	Number of studies completed by PMI on smoke-free products (cumulative, since 2015)					
	Toxicological assessment	n/a	109	146	203	
	Clinical assessment	n/a	19	22	24	
	Perception and behavior (premarket and post-market)	n/a	13 (9 + 4)	30 (15 + 15)	44 (25 + 19)	
	Supply chain direct spend expenditure ratio (smoke-free/total) ⁴	n/a	35%	33%	35%	
	Cumulative investment behind smoke-free products (since 2008, in billions USD) ⁵	2.4	7.2	8.1	9.2	
Sourcing & Operations	Number of factories producing smoke-free products out of total number of factories ^{6*}	2 out of 48	8 out of 38	8 out of 39	8 out of 38	
	Year-on-year change in number of SKUs—combustible products ⁷	n/a	(6%)	(5%)	3%	
	Year-on-year change in number of SKUs—smoke-free products ⁷	n/a	26%	38%	42%	
	SKUs ratio (smoke-free/total)	3%	10%	14%	18%	
	Number of markets where smoke-free products are available for sale ^{8*}	7	52	64	71	100
	Proportion of markets where smoke-free products are available for sale that are low- and middle-income markets ^{9*}	33%	35%	41%	43%	>50%
	Number of IQOS stores ¹⁰	n/a	199	259	274	
	Number of retailers that sell PMI smoke-free product consumables (in thousands)	n/a	679	748	812	
	Commercial (marketing) expenditure ratio (smoke-free/total)*	8%	71%	76%	73%	
	Smoke-free product shipment volume (billion units)*	1	60	76	95	>250
Commercialization	Combustible product shipment volume (billion units)*	881	732	654	650	<550
	Change in combustible product shipment volume (billion units) vs. 2015 baseline ^{11*}	n/a	(17.0%)	(25.8%)	(26.3%)	~(40%)
	Smoke-free product shipment ratio (smoke-free/total) ^{11*}	0.1%	7.6%	10.4%	12.8%	>30%
	Total number of users of PMI smoke-free products (in millions) ^{12*}	0.2	13.5	18.3	21.7	
	Estimated number of users who have switched to PMI smoke-free products and stopped smoking (in millions) ^{12*}	0.1	9.6	13.0	15.3	>40
	Adjusted net revenues ratio (smoke-free/total) ^{13*}	0.2%	18.7%	23.8%	29.1%	>50%
	Number of markets where adjusted net revenues from smoke-free products exceed 10% of adjusted total net revenues ^{13*}	0	31	38	47	
	Number of markets where adjusted net revenues from smoke-free products exceed 50% of adjusted total net revenues ^{13*}	0	4	6	10	
	Annual net revenue from wellness and healthcare products (in billions USD)	n/a	n/a	n/a	0.1	≥1

* The 2021 metrics marked with an asterisk (*) are subject to PwC's Assurance Report (see page 245).

Notes:

Smoke-free products include heated tobacco units, e-cigarettes, snus, and nicotine pouches. Total products include smoke-free products, cigarettes, and other combustible products.

In 2022, we plan to evaluate our published targets to ensure they remain ambitious, reasonable, and achievable in the context of a dynamic and evolving smoke-free industry. See page 34.

1 R&D expenditure in wellness and healthcare is included in both smoke-free and total R&D expenditures. Adjusted R&D expenditure excludes asset acquisition cost related to OtiTopic, Inc. in 2021. Total reported R&D expenditure in 2021 including these items amounted to USD 617 million.

2 R&D positions include scientists, engineers, technicians, and support staff. Comparable data for years prior to 2018 are not available as the scope of R&D positions changed following company organizational changes.

3 IP5 jurisdictions are Europe (patents granted by the European Patent Office), China, South Korea, Japan, and the U.S.

4 Direct spend focuses on materials used in the manufacture of our products; it includes tobacco leaf, direct materials, and electronic devices and accessories.

5 Investments reflect research, product and commercial development, production capacity, scientific substantiation, and studies on adult smoker understanding. Figure does not include commercial deployment costs.

6 Data reflect the number of factories operated and owned by PMI at the end of the respective year. Number of factories fully or partially dedicated to smoke-free products includes seven factories related to heated tobacco unit production and one factory related to e-vapor consumables production. 2021 figures exclude one factory dedicated to wellness and healthcare products owned by Fertin.

7 SKU stands for stock-keeping units. References to the number of SKUs are based on the latest available data and categorization of our product portfolio into SKUs; therefore minor restatements in previous years' data is reflected. The figures exclude China and the U.S.

8 Data reflect the status by the end of respective year. 2021 data excludes Belarus and the U.S.

9 Excluding PMI Duty Free. Data reflect the status by the end of respective year. 2021 data excludes Belarus and the U.S. For definition of low- and middle-income markets, see glossary.

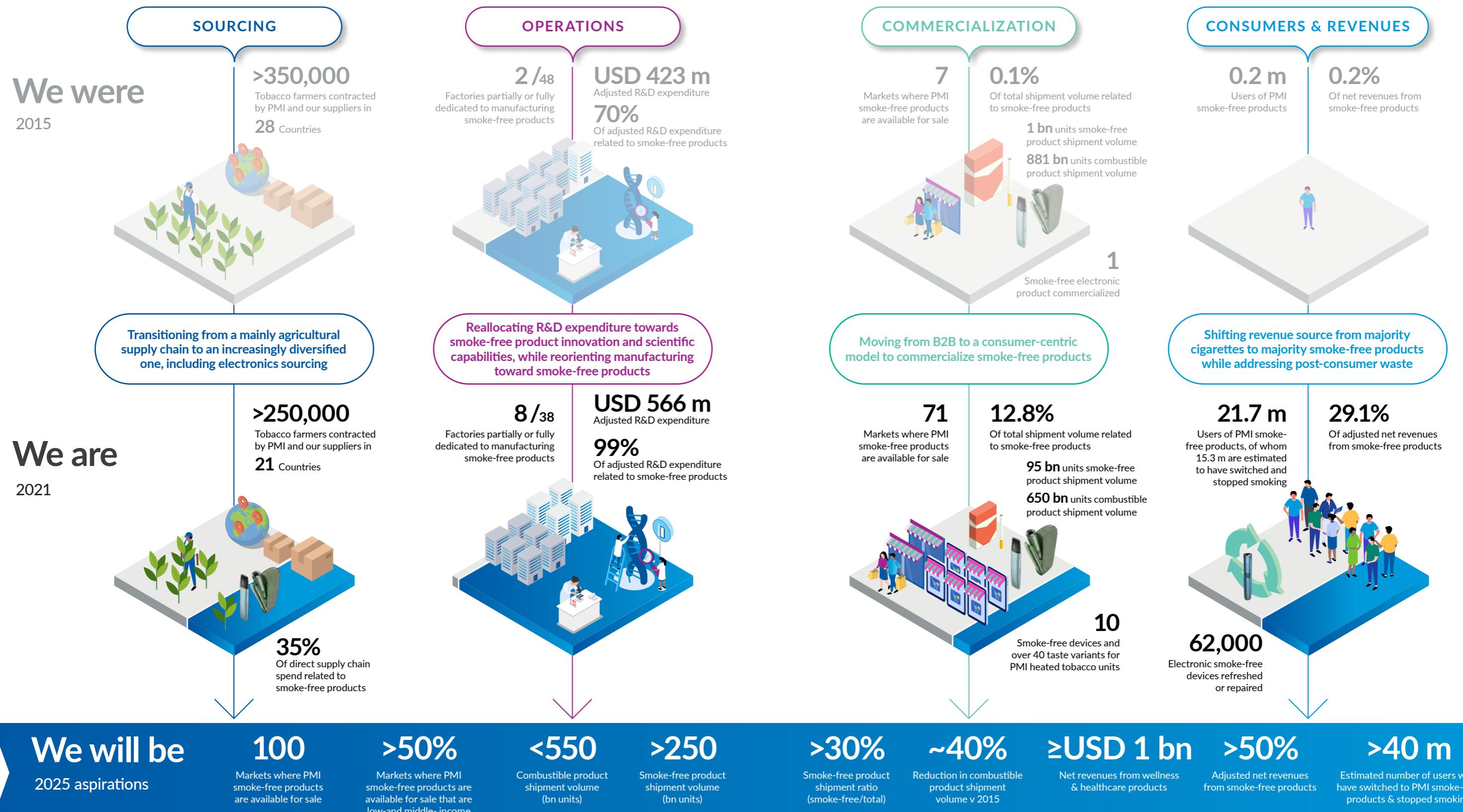
10 Includes flagship stores and small, large, and temporary boutiques.

11 These indicators are calculated based on millions of units.

12 These metrics are excluding PMI Duty Free and reflect the estimated number of legal age (minimum 18 years) users of PMI IQOS heat-not-burn product (see glossary). In 2021, we evolved our methodology to estimate the total number of users of PMI smoke-free products, in order to better reflect the number of users for which PMI HTU represented at least a portion of their daily tobacco consumption over the past seven days. 2020 data was restated accordingly. Unavailability of sufficiently granular data did not enable us to restate figures for years prior to 2020. We also fine-tuned our methodology to estimate the number of users who have switched to PMI smoke-free products and stopped smoking, in order to reflect the conversion rate of our total user base at year-end, and restated 2020 data accordingly.

13 Data reflect the status by the end of respective year. 2021 adjusted net revenues exclude the impact related to the Saudi Arabia customs assessments. 2021 revenues from wellness and healthcare (USD 101 million) are included in both smoke-free and total adjusted net revenues. See glossary.

Our value chain transformation



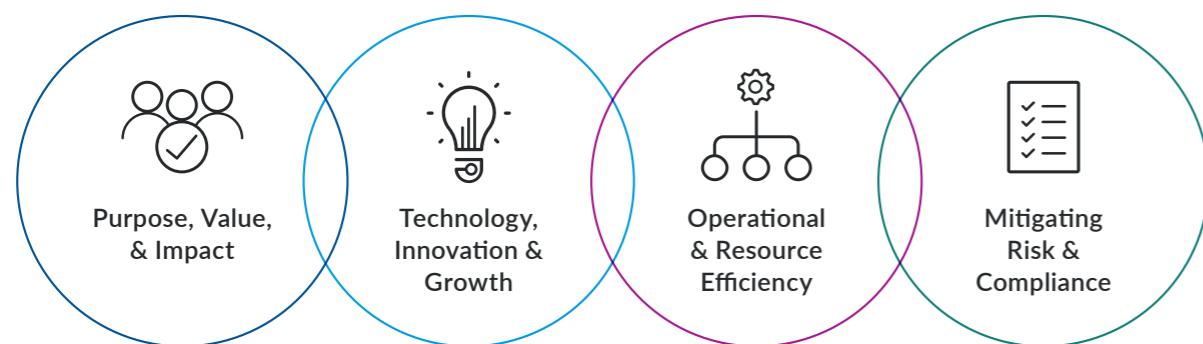
Note: In 2022, we plan to evaluate our published targets to ensure they remain ambitious, reasonable, and achievable, in the context of a dynamic and evolving smoke-free industry. We intend to develop a new 2025 aspiration related to the total number of users of PMI smoke-free products. See [page 35](#) for complete Business Transformation metrics and 2025 aspirations with accompanying footnotes.

Anchoring sustainability at the core of our strategy

We can only achieve our purpose by embedding sustainability in all we do.

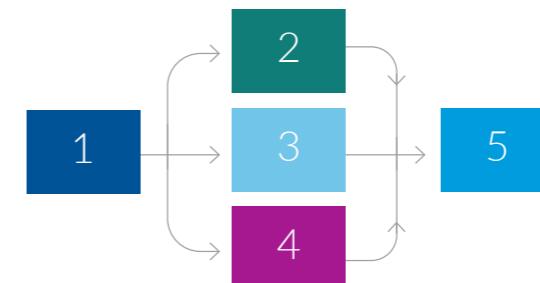
For PMI, sustainability is more than just a means to minimize negative externalities and mitigate risks while maximizing operational efficiency and resource optimization. We see it as a fundamental opportunity for innovation, growth, and purpose-led, impact-driven, long-term value creation.

Accordingly, we work hard to integrate sustainability into every aspect of our business and activities.



The right focus

A robust sustainability materiality analysis allows us to identify, assess, and prioritize ESG topics. By feeding findings from these regular assessments into our strategy, targets, KPIs, and reporting, we are able to keep pace with external and internal developments and ensure our strategy addresses those areas in which we can have the most significant impact. Our 2021 sustainability materiality assessment, conducted in the second half of the year, helped identify those ESG topics that we should focus on. In line with the principle of double materiality, it consisted of a five-pronged approach that included evaluating both outward and inward impacts and considering stakeholder expectations.



Valuing impacts

In support of the creation of a global impact measurement and valuation standard monetizing and disclosing impacts of corporate activities, PMI joined other companies in 2019 to co-found the Value Balancing Alliance (VBA), a nonprofit organization. Impact valuation can help companies identify, understand, improve, and demonstrate the benefits and costs of their activities to society and the environment, translated into monetary terms.

1. Identifying ESG topics

Identifying all potentially relevant ESG topics and compiling them in a long list of topics

2. Gathering stakeholder perspectives

Collecting the perspectives of our stakeholders through in-depth interviews and a quantitative survey

3. Assessing outward impacts

Evaluating PMI's impact on society and the planet at various stages of our value chain

4. Assessing inward impacts

Evaluating the potential impacts of ESG topics on our company's performance

5. Identifying our most material ESG topics

Building the materiality matrix, based on feedback from our stakeholders and the results of our impact assessments, and identifying those areas on which we should focus

We leveraged insights gathered during our first pilot of the VBA methodology conducted in 2020 to feed into our recent sustainability materiality assessment and inform the evaluation of our company's impacts on society and the planet ("outward impacts"). At the end of 2021, we started piloting the second version of the VBA methodology with a set of seven environmental, social, and economic topics covering companies' operations and upstream supply chains.

Traditional reporting



Input

What resources have been used for business activities?



Output

What activities have been undertaken?



Outcome

What changed as a result of the business activities?



Impact

How does the outcome affect society?



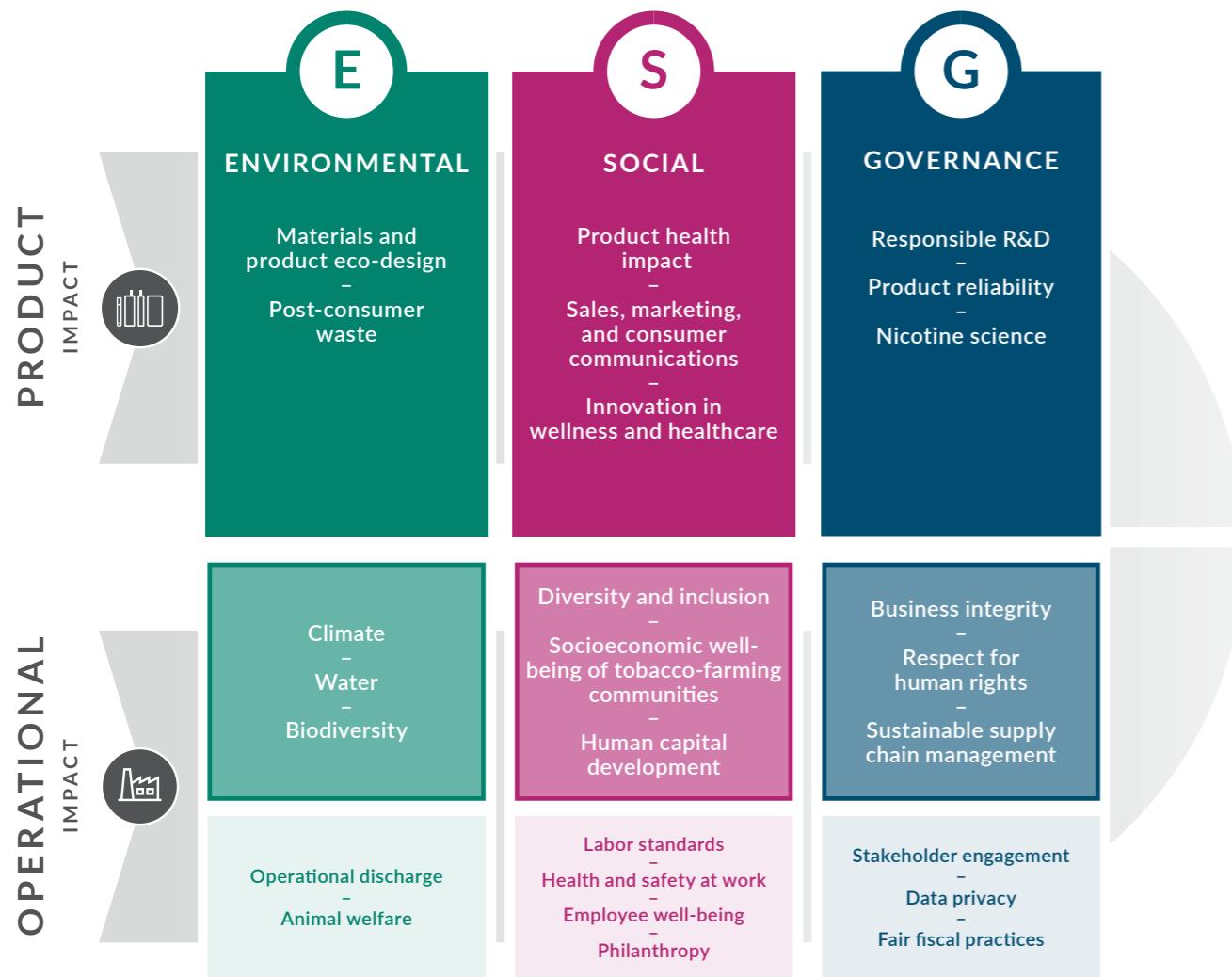
How do people value the change in well-being due to the impact?

To appropriately reflect the results of our recent sustainability materiality analysis, we redesigned our ESG framework to better showcase the ESG topics we should focus on and prioritize our resources. This framework recognizes two distinct forms of issues: those that relate to our products (what we produce) which are part of the "Product Impact" pillar and those related to our business operations (how we produce), which are part of the "Operational Impact" pillar. We subsequently classified each issue, based on its environmental, social, or governance-related nature.

We provide details on the methodology and results of our assessment, as well as on our updated ESG framework, in our [Sustainability Materiality Assessment Report 2021](#).

Priority topics

In the below visual, those topics that require our urgent attention and prioritization are highlighted in the most brightly colored boxes. These priority topics include all topics related to the Product Impact pillar: materials and product eco-design; post-consumer waste; product health impact; sales, marketing, and consumer communications; innovation in wellness and healthcare; responsible R&D; product reliability; and nicotine science. Our priority topics pertaining to our Operational Impact pillar include climate; water; biodiversity; diversity and inclusion; socioeconomic well-being of tobacco-farming communities; human capital development; business integrity; respect for human rights; and sustainable supply chain management.



Our sustainability strategy

Our approach to sustainability focuses on developing strategies that can successfully address the environmental, social, and governance topics identified as a priority by our sustainability materiality assessment. Accordingly, our strategy crystallizes the notion of these two distinct forms of social and environmental impacts—those generated by our products (what we produce) and those generated by our business operations (how we produce).

This approach allows us to appropriately highlight that, consistent with our sustainability materiality analysis results, addressing the social impacts generated by our products is the core of our strategy. These are the areas on which we must focus our resources, to innovate and develop solutions that can contribute to solving some of society's most pressing challenges. This also represents an opportunity for growth and our strongest competitive advantage.

The biggest and most pressing negative externality our strategy aims to address is the health impacts of cigarette smoking. This is the most important contribution we can make to public health and is the cornerstone of PMI's purpose and business strategy. Addressing this critical issue requires a three-part approach:

1. Develop better alternatives to smoking

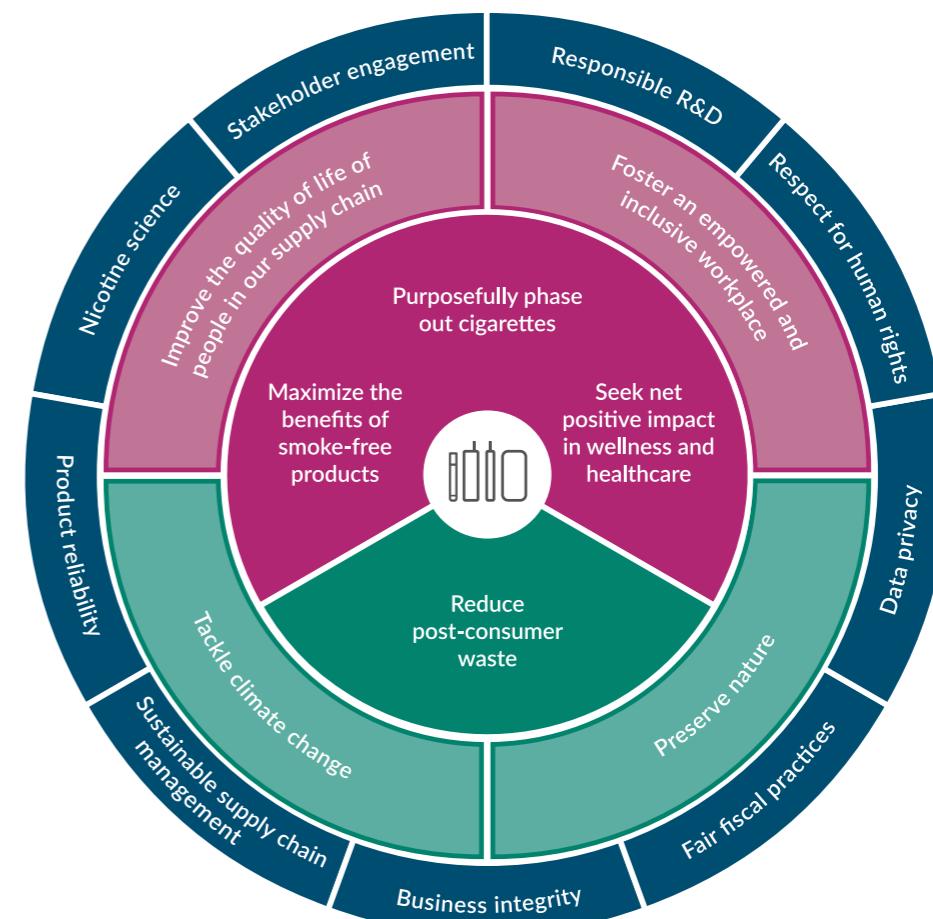
Research, develop, and commercialize scientifically substantiated nicotine-containing products that are less harmful than cigarettes

2. Accelerate smoking decline

Provide broad access to adult smokers, who otherwise would not quit smoking, to ensure these products accelerate the decline of smoking prevalence

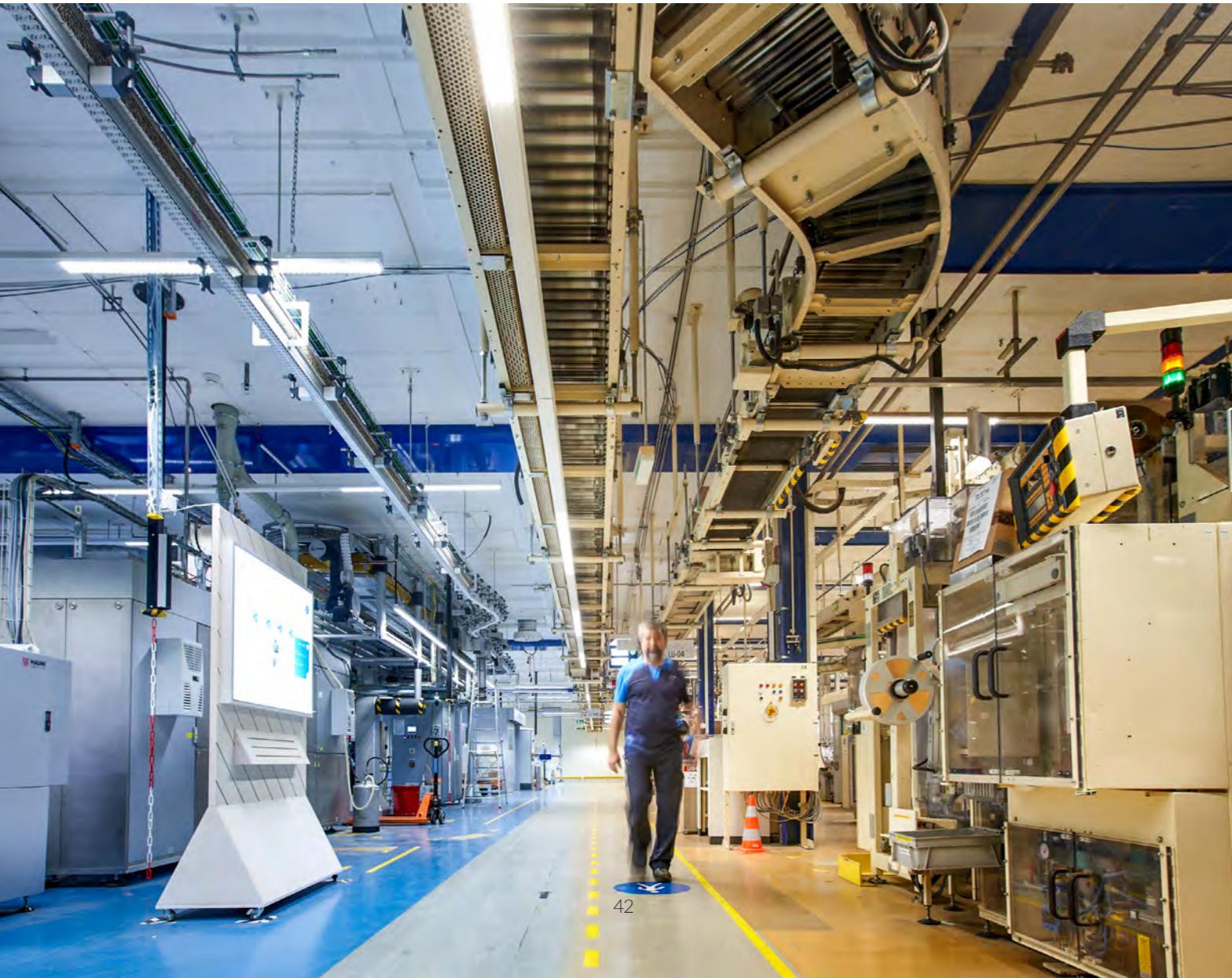
3. Make cigarettes obsolete

Purposefully work to ensure these products ultimately replace cigarettes, driving their obsolescence



Despite its critical importance, achieving a smoke-free future is not our final horizon. We are simultaneously exploring adjacent opportunities for growth in wellness and healthcare, leveraging the capabilities we have accrued and developed while transforming our business. It is through these avenues of growth that we will achieve our ultimate goal: becoming a business that has a net positive impact on society and the environment.

Our comprehensive strategy also recognizes the need to address other ESG issues related to our products and business operations. As we accelerate our transition from cigarettes to smoke-free products, we must also minimize any adverse effects of our products on the planet. Our efforts in this area include striving to design our products in a way that optimizes the use of materials and improves circularity, as well as appropriately managing their end-of-life to minimize negative environmental impacts.



In parallel, we must responsibly manage the impacts of our company's operations throughout the value chain. From a social standpoint, this includes ensuring fair treatment and empowerment of our employees and improving the lives of people across our supply chain. On the environmental front, this means tackling climate change and preserving natural ecosystems.

As a result, our approach to sustainability addresses our ESG priorities through eight impact-driven strategies. Four of these strategies focus on the impacts derived from our products and the remaining four strategies focus on the impacts derived from our business operations. Last, but not least, our strategy highlights the importance of governance-related topics, which cannot be overstated. Our company's policies, rules, and procedures define our ability to implement sound strategies that successfully address environmental and social issues.

Connectivity and trade-offs between ESG topics

Sustainability challenges do not exist in a vacuum. They are often linked, and their interdependencies—including the direction of causality and magnitude—must be considered as we craft appropriate strategies and develop programs to address our company's impacts.

We seek solutions that are mutually reinforcing. For instance, our approach to carbon compensation—supported by our portfolio of climate investments (read more [here](#))—favors nature-based solutions in our supply chain that remove carbon by restoring and enhancing plants and the ecosystem while also providing benefits in the areas of biodiversity, water, and social impact.

In other instances, addressing a particular topic may limit how we tackle another. For example, the core of our smoke-free strategy is to raise awareness of smoke-free products among adult smokers and broaden access to them. In doing so, however, it is critical that we limit our initiatives to minimize the risk that our messages will reach unintended audiences—namely, nonsmokers and youth.

Necessary trade-offs such as this often occur in the course of our business transformation. For instance, the manufacturing processes of smoke-free consumables are more resource-intensive than for cigarettes—a circumstance that runs counter to our energy and water conservation efforts in our direct operations. We are tackling this challenge and improving operational efficiency to mitigate and reverse this impact (read more [here](#)). As another example, the growth of our smoke-free business will result in a simultaneous decline of our cigarette business.

While this consequence is fully intended, it also necessarily translates into a gradual decrease in demand for tobacco leaf, which will have an undeniable impact on our contracted farmers.

We seek to minimize the negative effects by improving the socioeconomic well-being and resilience of tobacco-farming communities (read more [here](#)).

Given the multifaceted and complex nature of sustainable development, trade-offs are inherent to decision-making. In some circumstances, we are compelled to make sacrifices in one sustainability area to obtain benefits in another, at least for a period.

In designing our strategies and programs, it is vital that we accurately analyze, comprehend, and account for situations of forced compromise, guided by our sustainability materiality assessment. Incorporating three lenses (stakeholder perspectives, outward impacts, and inward impacts), our sustainability materiality assessment serves as a compass with which to calibrate and prioritize competing ESG issues. When appropriately addressed, some trade-offs can be a source of innovation, as such compromises press us to come up with novel ways to address the tensions that are present. By embedding an integrated approach to sustainability within our business, we are able to monitor and tackle multiple issues simultaneously, identifying effective solutions that leverage interdependencies to make progress.

Setting ambitions and targets

Progress requires clearly articulated targets and accountability for meeting them.

Measuring and reporting on progress is a backward-looking exercise. To evaluate the effectiveness of our approach to sustainability and give clarity to both internal and external stakeholders, setting clear targets is paramount. It allows us to define our direction, align on definitions and measurements of success, and hold ourselves accountable for progress.

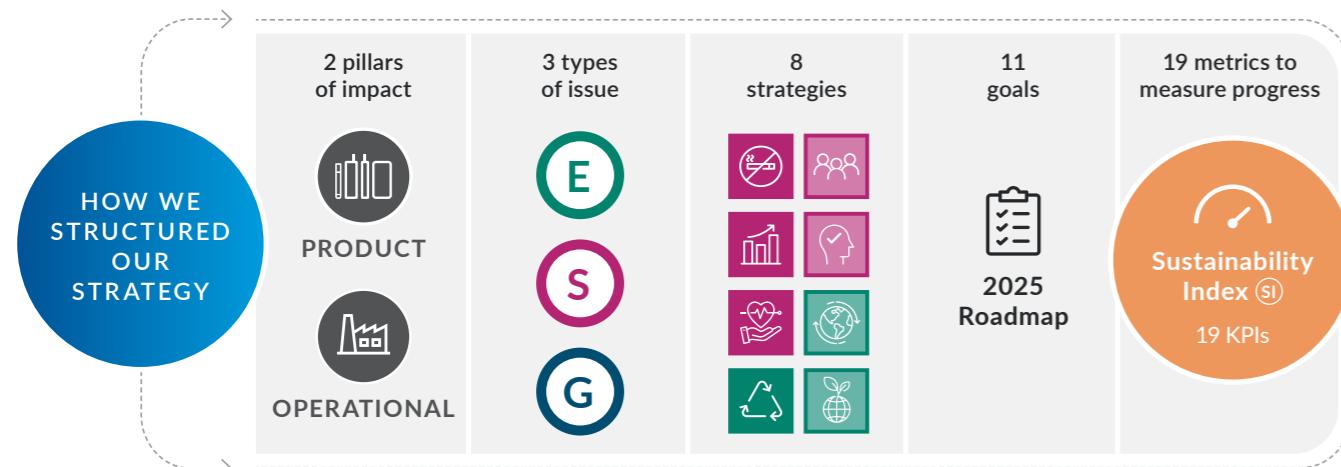
When we introduced our 2025 Roadmap in our first Integrated Report (2019), we did not yet have clarity on precisely how we would achieve these ambitions. Our recent materiality assessment and revamped ESG framework, together with the lessons learned from years of program implementation, prompted us in 2021 to cast a critical eye on our current aspirations and targets.

As a result, we reassessed and redefined our roadmap. The intention was twofold: First, we wanted to ensure our roadmap was comprehensive, coherent, and consistent with our new strategy (based on our sustainability materiality results and ESG framework); and second, we wanted to evolve our approach to target-setting and ensure our goals are connected to impact, not merely to strategic inputs. In some cases, this has led us to restate our goals to ensure that they are meaningful and viable, while remaining ambitious.

The result is a revamped 2025 Roadmap. While most goals are not new, they are formulated more clearly. Our roadmap now consists of 11 critical objectives connected to our eight strategies. This revamped guide offers straightforward direction to our stakeholders by clearly outlining the social and environmental impacts we aim to achieve with both our products and our business operations.

To link each goal to specific outcomes and impacts, we developed a set of KPIs that precisely articulate how to measure progress and define success. These 19 KPIs constitute our Sustainability Index. Covering the full spectrum of our sustainability priorities, the index will allow PMI and our stakeholders to track the company's progress toward its goals year-over-year.

In parallel, to increase the robustness of our nonfinancial performance data and disclosures, we developed a consolidated set of nonfinancial standards: PMI's ESG KPI Protocol. The Protocol includes the definition, methodology, and scope of each of our main ESG KPIs to ensure measurable, verifiable, consistent, and accurate reporting on progress. We will make the Protocol publicly available over the summer.



Our 2025 Roadmap

Our roadmap outlines our key goals and informs the route of our company's long-term plan.

PMI's revised [2025 Roadmap](#) comprises 11 headline goals, running to the end of 2025, connected to our eight strategies.

We believe business can and must help to achieve the Sustainable Development Goals (SDGs) adopted by the United Nations' member states in 2015. Accordingly, we explicitly link each of our eight priority areas of action to the SDG(s) to which it aligns. We identified the SDGs on which we believe we can have a real and lasting impact (read more about our SDG mapping in our [2021 Sustainability Materiality Report](#)). Our [SDG Index](#) maps the actions and ambitions described throughout this report with the relevant SDGs and their respective targets.

PMI Sustainability Index

Progress on our roadmap is measured with a set of key performance indicators that collectively form our Sustainability Index.

During 2021, we developed [PMI's Sustainability Index](#) to measure and communicate progress against our aspirations in a rigorous and quantitative manner, using a set of clearly defined and verifiable metrics. To better align with shareholder and other stakeholder interests, the introduction of this index has allowed the Compensation and Leadership Development Committee of PMI's Board of Directors to enhance the company's compensation practices, explicitly linking them to sustainability and further ensuring a strong link between executive compensation and ESG performance (read more [here](#)).

PMI's Sustainability Index comprises 19 KPIs that are directly linked to our 11 roadmap goals. As with our roadmap, we have split the 19 KPIs according to two drivers: "Product Sustainability" (11 KPIs) and "Operational Sustainability" (8 KPIs).

To form the Sustainability Index, we sought KPIs that were:

- Well defined, allowing for accurate, reliable, and consistent measurement of progress over time
- Meaningful, enabling stakeholders to assess our company's progress towards its priority sustainability topics

This required us to revise certain KPIs included in our former sustainability disclosures. Further, applying these criteria led us to introduce new, more relevant indicators for inclusion in the index.

We have defined annual targets and performance ranges from 2022 to 2025 for each KPI in our Sustainability Index. On an annual basis, using these predefined target ranges, we will assess and award a score to each KPI. Thereafter, using a weight assigned to each KPI, the total Sustainability Index score will be calculated on a scale from 0 to 150 percent, with a target between 90 and 110 percent every year.

The weighting applied to each KPI is informed by the results of our sustainability materiality assessment. Specifically, we attributed the highest weight to the social impacts of our products, where we believe our company can have the greatest impact.

Looking ahead

During 2022, we intend to develop a new 2025 aspiration related to the total number of users of PMI smoke-free products. Given the dynamic and evolving smoke-free industry, coupled with the potential impact of the Russian invasion of Ukraine (discussed on [page 3](#) of this report) and its potential effects on our business over the mid to long term, which remain uncertain, we are working to refine this ambition and intend to communicate it within the next year.

To better reflect our priorities, as defined by our materiality analysis, we also intend to introduce two new KPIs to the index, incorporating the increasing relevance of water and biodiversity.



Our 2025 Roadmap

PRODUCT IMPACT

Goals	Priority ESG topics and primary SDGs	Progress in 2021
Purposefully phase out cigarettes 	① Intentionally work toward phasing out cigarettes by ensuring that smoke-free products represent at least 30% of our shipment volumes and more than half of our net revenues by 2025 while continuing to reduce our combustible shipment volume Product health impact 	
Maximize the benefits of smoke-free products 	② Develop and commercialize science-based smoke-free alternatives, making them available in 100 markets (of which at least half in low- and middle-income markets) and continuing to increase the total number of users ③ Deploy robust youth access prevention programs in indirect retail channels and ensure that sales of our products abide by our Marketing Codes Product health impact; Sales, marketing, and consumer communications 	
Seek net positive impact in wellness and healthcare 	④ Leverage scientific and development capabilities to generate at least USD 1 billion in annual net revenues from products in wellness and healthcare Innovation in wellness and healthcare 	
Reduce post-consumer waste 	⑤ Reduce post-consumer waste and prevent littering by implementing comprehensive programs covering all our consumables ⑥ Follow eco-design and circularity principles for all smoke-free electronic devices Materials and product eco-design; Post-consumer waste 	
Foster an empowered and inclusive workplace 	⑦ Nurture a more diverse culture that promotes equity and inclusion by providing access to lifelong learning to all our employees and improving gender and local representation in management globally Diversity and inclusion; Human capital development 	
Improve the quality of life of people in our supply chain 	⑧ Eradicate systemic child labor in our tobacco supply chain ⑨ Ensure all contracted tobacco farmers make a living income, and partner with our direct suppliers to promote a living wage for their workers Socioeconomic well-being of tobacco-farming communities 	
Tackle climate change 	⑩ Achieve carbon neutrality in our operations and accelerate our decarbonization toward net zero across our value chain Climate 	
Preserve nature 	⑪ Promote biodiversity, address critical water challenges, ensure no conversion of natural ecosystems, and halt deforestation in both our tobacco and pulp and paper supply chains Biodiversity; Water 	

Progress with challenges

On track

Progress further than anticipated

PMI Sustainability Index

Key performance indicators	2021 performance	2025 aspirations	Contribution to total index score
① Smoke-free product shipment ratio (smoke-free/total)	12.8%	>30%	
② Smoke-free product adjusted net revenue ratio (smoke-free/total)	29.1%	>50%	
③ Number of markets where PMI smoke-free products are available for sale	71	100	
④ Proportion of markets where PMI smoke-free products are available for sale that are low- and middle-income markets	43%	>50%	
⑤ Total number of users of PMI's smoke-free products (in millions) ¹	21.7		
⑥ Proportion of shipment volume covered by markets with youth access prevention programs in place in indirect retail channels.	91%	>90%	
⑦ Annual net revenue from wellness and healthcare products (in billions USD)	0.1	≥1	
⑧ Proportion of shipment volume covered by markets with anti-littering programs in place for combustible cigarettes	n/a	≥80%	
⑨ Proportion of shipment volume covered by markets with end-of-life take-back programs in place for smoke-free consumables	9 pilots	≥80%	
⑩ Proportion of PMI smoke-free devices with eco-design certification	n/a	100%	
⑪ Cumulative number of smoke-free electronic devices refreshed or repaired since 2021 (in thousands)	62	1,000	

Product Sustainability

⑫ Proportion of women in senior roles	31.1%	35%	
⑬ Proportion of PMI employees who have access to structured lifelong learning offers	n/a	70%	
⑭ Cumulative number of human rights impact assessments conducted since 2018, with findings addressed	5	10	
⑮ Prevalence of child labor among contracted farmers supplying tobacco to PMI	1.8%	0%	
⑯ Proportion of contracted farmers supplying tobacco to PMI who make a living income	67%	100%	
⑰ Net carbon emissions in scope 1+2 (in thousands of metric tons)	357	0	
⑱ Absolute carbon emissions reduction in scope 3 versus 2019 baseline (in line with science-based target)	17%	25%	
⑲ Proportion of tobacco purchased at no risk of deforestation of managed natural forest and no conversion of natural ecosystems	37%	100%	

Operational Sustainability

SUSTAINABILITY INDEX	100%	33%
		100%

¹ During 2022, we intend to develop a new 2025 aspiration related to the total number of users of PMI smoke-free products. See page 45.



Creating value

Resources and relationships	Key activities	Value created
<p>Human Our success depends on the dedication, talent, and consumer-centric focus of our employees. As of year-end 2021, we directly employed 68,547 people worldwide. 133 nationalities were represented within our workforce, and 42.2 percent of our employees were women.</p> <p>Intellectual Innovation is the backbone of our business transformation. We invested USD 566 million in adjusted R&D expenditures in 2021, of which 99 percent was dedicated to smoke-free products. Innovation also guides improvements in our processes, from sourcing to manufacturing, logistics, and sales.</p> <p>Natural In 2021, we sourced 291,361 tons of packed tobacco, a material vital to our products. Beyond tobacco, we use several other raw materials and natural resources such as timber-based products, metals, water, and energy to produce our products. We seek to use these efficiently and to source them sustainably.</p> <p>Manufactured Our assets—such as our two main R&D centers, 38 factories, more than 22,000 vehicles, 36 consumer call centers, and 274 IQOS stores—allow us to develop, manufacture, deliver, and commercialize our products to meet the demands of our consumers.</p> <p>Social Building trust with our stakeholders is essential. We develop and sustain relationships with a network of more than 22,000 suppliers, 253,813 contracted tobacco farmers, around 130 million adult consumers of our cigarette brands, and over 21 million users of our smoke-free products. Our relationships also extend to the retailers of our products, the communities in which we operate, government officials and regulators, nongovernmental organizations, and the multistakeholder initiatives in which we participate.</p> <p>Financial Our business activities require financial capital, which we strive to allocate efficiently to optimize value and drive sustainable growth. The capital is provided by our equity and debt holders, as well as by the cash flow generated by our operations. Our company's market capitalization as of December 31, 2021, was approximately USD 148 billion, and PMI's debt was USD 27.8 billion. At that time, PMI's long-term credit was rated A by Standard & Poor's and Fitch and A2 by Moody's.</p>	<p>Our mission Seek net positive impact as we accelerate the end of smoking and evolve into a broader lifestyle, consumer wellness, and healthcare company.</p> <p>What we do Transition away from a cigarette company into a world-leading smoke-free business while simultaneously exploring adjacent avenues of growth.</p> <p>How we do it While PMI's presence in different markets takes diverse forms, the key activities and drivers on which PMI operates around the world include:</p> <ul style="list-style-type: none">Ownership and licensing of trademarks and intellectual property: Intellectual property allows PMI to differentiate its offerings from the competition, and is key to communicating product information to the consumer, including meeting consumer needs, such as the quality, taste, image, and value of the product.Product manufacturing: The manufacturing of PMI products involves different stages, from the sourcing of tobacco leaf and other materials, as well as smoke-free electronic devices, to the production process for cigarettes and smoke-free consumables.Commercialization (marketing and distribution): Once products are manufactured under the relevant trademarks, they are commercialized in different geographies through various activities, including distribution, marketing, merchandising, trade, and consumer engagement.	<p>We harness our purpose and strategy to create value for our stakeholders through the deliberate allocation of our human, intellectual, natural, manufactured, social, and financial capital.</p> <p>Human</p> <ul style="list-style-type: none">Reached a total of 21.7 million users of PMI smoke-free products, of whom an estimated 15.3 million have stopped smoking and switchedReduced prevalence of child labor among contracted farmers supplying tobacco to PMI from 3.5% in 2020 to 1.8% in 2021, of which 99% of identified cases have been resolvedFostered a living income amongst contracted farmers supplying tobacco to PMI (achieving 67%, up from 48% in 2020) and a minimum wage for tobacco farmworkers (achieving 95%, up from 65% in 2020)Completed five in-depth human rights impact assessments since 2018, and ongoing monitoring and implementation of action plansMaintained high proportion of our shipment volume (91%) covered by youth access prevention programs in indirect retail channelsIntroduced an aspiration to expand PMI's lifelong learning program across the organization, initially deployed in our Operations functionImproved representation of women in management positions to 39.7% (up from 37.7% in 2020), and set a baseline to measure inclusion among PMI employees <p>Natural</p> <ul style="list-style-type: none">Reduced total value chain CO₂e emissions (scope 1+2+3) by 18% and emissions from direct operations (scope 1+2) by 33% versus 2019 baselineMaintained 100% of tobacco purchased at no risk of deforestation of primary and protected forestsOptimized 437,915 cubic meters of water in our tobacco supply chainAchieved virtually zero waste to landfill from our manufacturing sites globally <p>Manufactured</p> <ul style="list-style-type: none">Expanded smoke-free product portfolio, commercializing 10 different smoke-free heat-not-burn and e-vapor devices and over 900 smoke-free consumable stock-keeping units to meet the needs and preferences of various consumersExtended presence, with 71 markets where PMI smoke-free products are available for purchase, among which 43% are in low- and middle-income markets <p>Social</p> <ul style="list-style-type: none">Purchased 98% of tobacco through direct contracts by PMI and our tobacco suppliers, enabling implementation and monitoring of PMI's Good Agricultural PracticesIncreased the proportion of critical supplier spend sourced sustainably to 83% in 2021Expanded employee resource groups, in partnership with external subject matter experts, for employees to connect based on shared characteristics or life experiences <p>Financial</p> <ul style="list-style-type: none">Derived 29.1 percent of our annual adjusted net revenues from smoke-free products, out of total adjusted net revenues of USD 31.7 billionReported USD 2.7 billion in corporate income taxesUSD 76.8 billion in total excise tax paid by consumers on PMI productsUSD 5.00 annualized dividend based on a quarterly dividend of USD 1.25/share, declared September 15, 2021; 14th consecutive year with a dividend increase since becoming a public company in 2008

CASE STUDY Impact of PMI's expansion in wellness and healthcare on different forms of capital

Although PMI's transformation journey started with a vision centered on the critical mission of phasing out cigarettes, this is not its sole and ultimate end goal. PMI is now actively working to expand its purpose and evolve into a broader lifestyle, consumer wellness and healthcare company, extending its value proposition and innovative capability to commercialize products that go beyond tobacco and nicotine. Read the dedicated case study on [PMI.com](#).

Letter from our Chief Sustainability Officer: Measuring what matters



“PMI employees are the heart, soul, and primary driver of change within our company. They are the ones building a culture that embraces sustainability and a community conscious of its impacts.”

We dedicated much of 2021 to strengthening our governance and better integrating sustainability into our corporate strategy. Our new sustainability materiality assessment helped us identify, prioritize, calibrate, and define the ESG topics to focus on. The results allowed us to revamp our ESG framework, categorize topics according to their environmental, social, or governance nature, and introduce two pillars: our products and our business operations.

Besides having a framework that clearly organizes ESG issues, we introduced a new format that helps us convey our approach to sustainability. More concretely, this new format showcases how these ESG topics are organized and become inputs to a strategy that aims to be impact-driven.

Addressing the impacts of our products remains at the core of our strategy. We, of course, start by focusing on their health impacts. Beyond that, we have established a clear distinction between the environmental and social impacts that derive from our products (what we produce) and the impacts that derive from our business operations (how we produce). In addition, we have made corporate governance an all-encompassing component of our strategy, recognizing its importance in embedding sustainability into corporate strategy.

Framing these different impacts and their origins in this way crystallizes both our inputs and desired outcomes, bringing clarity to our organization in terms of how best to allocate resources and integrate sustainability into our ways of working. We hope it will also help external stakeholders understand our approach to sustainability from an impact perspective. This approach is composed of eight impact-driven strategies and intrinsically connected to our 2025 Roadmap, which communicates our ambitious vision through a set of 11 headline goals.

As sustainability matures and gains importance inside and outside our company, the question of how to measure ESG performance is something many continue to grapple with. We have long expressed our support for more rigor in sustainability-related reporting and disclosures—and not just for companies, but also for ESG ratings and related products. There is a need for greater transparency, more robust methodologies, and better clarity on definitions and assumptions. We certainly welcome recent developments leading to more consistency in standards under strong governance frameworks.

Accordingly, 2021 was a year when we also focused on developing a clear and accepted process for establishing concrete definitions, documentation, and controls for sustainability with the aim of standardizing how we measure ESG performance. Taken together, these standards make up our ESG KPI Protocol, which brings structure to the process of defining success, concrete measurements of progress, and clear governance and accountability structures, and will be published later in 2022.

Reporting is, by nature, a backward-looking exercise. That said, we understand that the value of embedding sustainability into corporate strategy lies in thinking long term and being able to disclose forward-looking ambitions, transition plans, and progress. Coupling comparable, meaningful, and reliable data with clear goals, long-term plans, and forecasted impacts is central to stakeholders' and investors' ability to incorporate ESG into their decision-making.

Another topic of debate relates to the optimum way to maximize the alignment of incentives with sustainability-related results to meet the evolving expectations of investors and other stakeholders. We are proud to have answered this demand by introducing a Sustainability Index that lets us integrate ESG performance into long-term executive compensation in an easily understandable, strategic, coherent, comprehensive, and credible manner.

We believe that relying on a bespoke index, as opposed to relative external indices, will allow PMI to align its resource allocation and efforts more consistently and strategically with its most material ESG topics. PMI's Sustainability Index consists of 19 KPIs, which measure progress toward the 11 goals in our 2025 Roadmap. We aim to continuously improve our performance and drive material and measurable progress—all communicated through open and clear reporting and disclosure.

Having an overarching global sustainability strategy is as important as ensuring it is cascaded down to our markets—PMI employees are the heart, soul, and primary driver of change within our company. They are the ones building a culture that embraces sustainability and a community conscious of its impacts.

Together we ensure that success is achieved while respecting environmental and social boundaries. We recognize the essential need to continue building legitimacy and trust with our stakeholders, who are fundamental to our company's purpose and can accelerate the pace at which we achieve it. Our 2021 Integrated Report aims to address their demands for more transparent, comparable, and reliable information on our ESG risks and performance.

2021 was a year full of achievements, but challenges remain, including in areas related to ESG. As we continue to transform, learn, and discover better ways to develop solutions that have meaningful impact, we hope our transparency and willingness to engage will spark dialogue with those who can help accelerate the pace of change. I invite you to reach out and share your feedback, to question, to challenge, and above all, to engage with us as we remain focused on making our company better, focused on sustainability, and committed to our purpose.

Jennifer Motles
Chief Sustainability Officer

Corporate governance and management

PMI's governance structure underlies our daily activities to ensure that we conduct ourselves and our business in compliance with the highest ethical standards and with integrity.

Our Board of Directors

The primary responsibility of the Board of Directors is to support the long-term success of our company. The Board is responsible for establishing broad corporate policies, setting strategic direction, and overseeing PMI's Company Management—the individuals responsible for PMI's day-to-day operations, as defined below.

The Board has established various standing committees to assist with the performance of its responsibilities. It adopted corporate governance guidelines, which—along with the company's charter, bylaws, charters of Board committees, code of ethics, code of business conduct and ethics for directors, and related-person transactions policy—provide the framework for the governance of the company. All these documents are available on [PMI.com](#).

PMI's annual [Proxy Statement](#) contains detailed information on our Board and committee structure, the independence and diversity of its members, and the responsibilities and meeting frequency of each committee.

Our Company Management

PMI's Company Management (also referred to as our "Senior Management Team") encompasses our Chief Executive Officer, his direct reports leading our different business functions and regions, the Vice President Treasury & Corporate Finance, the Vice President & Controller, and the Deputy Chief Financial Officer & Head of Finance Transformation. Our Company Management, which totals 24 employees including four women as of March 11, 2022, includes the twelve employees who are executive officers under Section 16 of the Securities Exchange Act of 1934. A biography of each member of our Company Management team can be found on [PMI.com](#).

Executive compensation

Our compensation and benefits program supports our business, financial, and strategic objectives, and aims to:

- Support our ability to attract, develop, and retain world-class leaders in a controversial industry
- Align the interests of executives and shareholders
- Reward performance against pre-established objectives
- Support long-term business growth, superior financial results, sustainability efforts, societal alignment, and integrity of conduct
- Promote internal fairness and a disciplined assessment of performance
- Align executive incentives with our risk management objectives

These objectives provide the framework for the various components of compensation and benefits, which together form an aggregate package intended to be appropriately competitive. Our executive compensation program reflects our commitment to put sustainability at the core of our corporate strategy.

The three components of total direct compensation for our executive officers are base salary, annual performance-based incentive compensation awards, and long-term variable equity awards.

We continue to incorporate key measures pertaining to our transformation into both our annual and three-year management incentives.

In 2021, annual incentive awards were assessed on six growth measures, including a 20 percent weight for our heat-not-burn shipment volume and a 15 percent weight on strategic priorities and enablers. Those are heavily focused on our transformation to smoke-free products, and include the drive for material and measurable progress in priority sustainability corridors, alongside transparent and clear sustainability reporting and disclosure. For more information, please refer to [PMI's Proxy Statement 2022](#).

2022–2024 Performance Share Units (PSU) performance cycle

Long-term equity awards are intended to motivate our executives to produce results that enhance sustainable shareholder value and strengthen the Company over the long term.

We use Performance Share Units (PSUs) as the three-year incentive in our executive compensation program.

As set out in [PMI's Proxy Statement 2022](#), for the 2022–2024 PSUs granted in February 2022, the Compensation Committee established performance metrics at what it believes are appropriately ambitious levels that reflect the Board-approved three-year plan.

The Board retained the previously used metrics of Total Shareholder Return (TSR), weighted 40 percent, and currency neutral adjusted compound annual diluted earnings per share (EPS) growth, weighted 30 percent. It introduced as the final metric the Company's Sustainability Index, weighted 30 percent, which consists of two drivers:

- Product Sustainability, defined as an aggregation of key performance indicators pertaining to social and environmental impacts generated by the company's products; measuring progress on its efforts to maximize the benefits of smoke-free products, purposefully phase out cigarettes, seek net positive impact in wellness and healthcare, and reduce post-consumer waste; and
- Operational Sustainability, defined as an aggregation of key performance indicators pertaining to social and environmental impacts generated by the company's business activities; measuring progress on its efforts to tackle climate change, preserve nature, improve the quality of life of people in its supply chain, and foster an empowered and inclusive workplace.

In line with the Company's sustainability materiality assessment and their relative priority level in the context of the company's corporate strategy, Product Sustainability is weighted at 20 percent and Operational Sustainability is weighted at 10 percent, together amounting to 30 percent of the total PSU award.

Linking ESG performance to Executive compensation

In February 2022, PMI's Board of Directors decided to better reflect PMI's commitment to sustainability, which is the core of its corporate strategy, by including the Sustainability Index as one of our performance metrics under equity awards. Following the index's structure, its KPIs are aggregated into two main drivers: Product Sustainability and Operational Sustainability.



Sustainability governance and management

Integrating sustainability into our company relies on a formal structure with clear accountabilities at different levels of the organization.

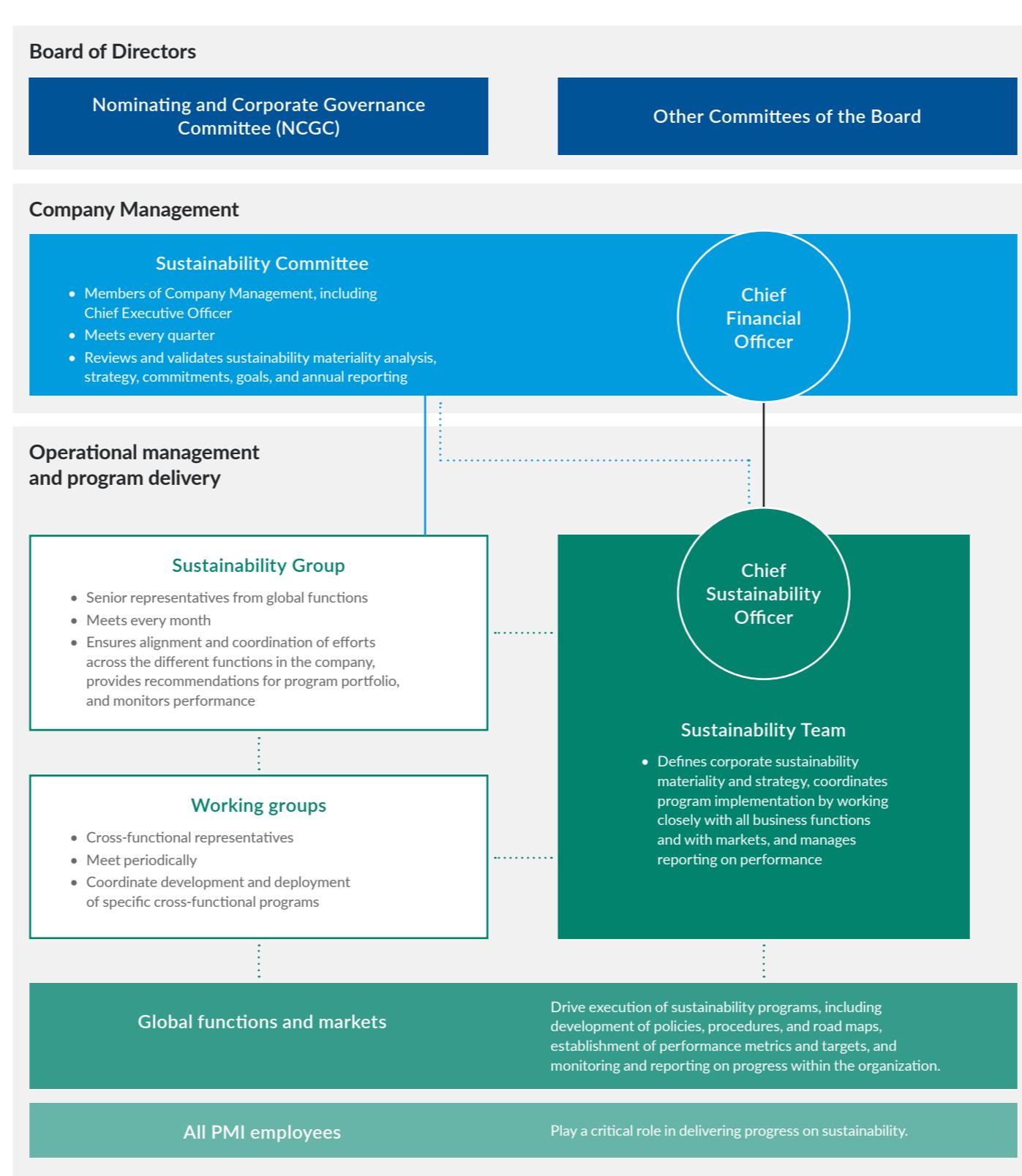
Board of Directors

While the Nominating and Corporate Governance Committee (NCGC) oversees the company's ESG and sustainability strategies and performance and advises the Board on sustainability matters, several other committees are tasked with oversight responsibility for different sustainability topics. For instance, the Audit Committee oversees, among other matters, the risk management of climate change, manufacturing and supply chain disruption, and the privacy and cybersecurity risk assessment, while the Compensation and Leadership Development Committee is responsible for executive compensation matters and will track and assess the company's performance on the PMI Sustainability Index. The NCGC and full Board of Directors are each updated at least once per year by the Chief Sustainability Officer (CSO) on sustainability-related matters, including progress in priority areas and an overview of key initiatives. In 2021, PMI's Board of Directors reviewed the results of PMI's sustainability materiality assessment and refreshed sustainability strategy, the establishment of PMI's Sustainability Index, and updated PMI's Statement of Purpose.

Company Management

Anchoring our sustainability priorities with executive responsibilities and accountabilities helps embed our strategy into our daily operations. Members of our Company Management are responsible for driving progress and delivering on our sustainability targets within their respective functions. As described above, the Compensation and Leadership Development Committee has tied a significant portion of our Company Management's compensation to the Sustainability Index.

Composed of members of the Company Management, PMI's Sustainability Committee meets at least four times per year. In 2021, meetings of the Sustainability Committee focused on reviewing the results of the sustainability materiality assessment and establishment of refreshed strategy, the development of PMI's Sustainability Index and ESG KPI Protocol, PMI's performance in ESG ratings and rankings, and received updates on various sustainability initiatives.



Operational management and program delivery

Fully integrating ESG drivers into business strategy can significantly enhance both sustainability agendas and financial performance. Accordingly, our CSO reports to PMI's Chief Financial Officer (CFO), a member of the Company Management who heads the Sustainability, Finance, and Strategy functions—three essential components working hand-in-hand to drive strong and coherent value creation and deliver long-term success. Our CSO leads the integration of sustainability across our business. She updates the Sustainability Committee on a quarterly basis and hosts the Sustainability Group—composed of functional leaders—quarterly.

The CSO heads PMI's Sustainability Team, which leads PMI's sustainability materiality analysis, defines strategy, manages reporting on performance, and coordinates strategy implementation across the different business functions and markets.

Program-specific working groups meet periodically to cross-functionally coordinate the strategy, targets, and performance of specific sustainability programs. Further, at the market level, dedicated sustainability coordinators help ensure that sustainability priorities are cascaded and programs are localized.

Our approach to sustainability programs

Our approach to designing and managing material sustainability topics is harmonized and relies on common foundational elements:

- Deep understanding of the topic, context, materiality, external expectations, and interdependencies with other issues
- Governance structures and policies to formally guide our actions and ambitions
- Performance indicators to measure progress and evaluate our efforts, attached to targets to drive improvement and provide clarity on our desired outcomes
- Concrete activities to achieve progress against targets
- Transparent reporting on progress, which encourages dialogue by allowing stakeholders to scrutinize our actions

The sustainability landscape is dynamic. We continuously update and strengthen our programs as knowledge improves, progress is made, or the relative importance of specific topics changes.

Risk management

We designed our risk management and internal control practices to address all significant and/or emerging strategic, external, inherent process, and project deployment risks that could undermine our ability to achieve our strategic business objectives and create value over time. ESG-related risks and opportunities are considered within our enterprise risk management practices.

Risk governance

We identify and prioritize key risk areas based on four dimensions: the impact of a risk on PMI were it to occur, its likelihood, its velocity, and its interconnectivity with other risks.

PMI assigns ownership of each prioritized key risk area to a member of our Company Management, with oversight from the Board of Directors or a particular Board committee. With support and insights provided by the risk management and Corporate Audit functions, our Company Management reports regularly on these risks to the appropriate Board committees and to the entire Board of Directors throughout the year.

As part of its risk management practices, the company has established a Corporate Risk Governance Committee (CRGC) made up of senior executive officers, including the Chief Financial Officer, Senior Vice President & General Counsel, Chief Digital & Information Officer, Vice President & PMI Controller, Global Head of Risk & Controls, Chief Information Security Officer, Vice President and Chief Ethics & Compliance Officer, and Vice President, Corporate Audit. In addition, the Chief Executive Officer and Vice President & Corporate Secretary are informed of the risk management observations and insights shared with the CRGC.

The CRGC and the Audit Committee of the Board of Directors receive updates related to the company's risk management and internal controls practices at least once per quarter.

Risk management

Risk management is facilitated through periodic alignment of "first line" business, "second line" risk management, and "third line" Corporate Audit functions.

Beyond the primary business functions, our risk management framework involves Risk & Controls, Ethics & Compliance, Information Security, Data Privacy, and Corporate Audit. As the overarching risk management function, Risk & Controls defines, develops, maintains, and executes risk management policies and methodologies, including the Enterprise Risk Management framework.



In 2021, a Quality Compliance function was formed to apply the existing risk management framework in the areas of research practices, product quality and stewardship, and regulatory compliance.

Corporate Audit, an independent function, provides senior management and the Audit Committee with objective assurance and advisory services designed to assess the adequacy and effectiveness of the company's internal control systems and use of resources.

Taking a holistic approach, these functions collaborate to continuously identify, assess, and respond to evolving or emerging strategic, external, inherent process, and project deployment risks.

Risk assessment

At the request of the CRGC, the Risk & Controls function defines the company's approach to risk management and coordinates a periodic enterprise risk assessment, which brings together the business, risk management, and Corporate Audit functions.

ESG-related risks and opportunities are considered within our enterprise risk assessment, which also leverages the company's sustainability materiality assessment process. More specifically, the priority ESG topics identified by the latest sustainability materiality assessment determine which ESG risks and opportunities are considered in the enterprise risk assessment.

In complement to our periodic enterprise risk assessments and regular sustainability materiality analyses, we have various risk evaluation mechanisms in place to support the development of tailored strategies and responses for our priority ESG issues along our value chain. Focused on environmental and social issues, some of these assessments include human rights risks saliency mapping, periodic climate risk and opportunities assessments, product life cycle assessments, and deforestation and water risk assessments.

Risk monitoring and compliance

Among other risk monitoring activities (e.g., reviews, advisories, assessments), our technical procedures and internal controls over financial reporting comply with the Sarbanes-Oxley (SOX) Act. Risk & Controls and our external auditors provide independent opinions on the design and operating effectiveness.

Our business, risk management, and Corporate Audit functions execute assurance gathering activities beyond the SOX scope, addressing inherent process risks by leveraging the defined library of Global Standard Processes, Risks, and Controls.

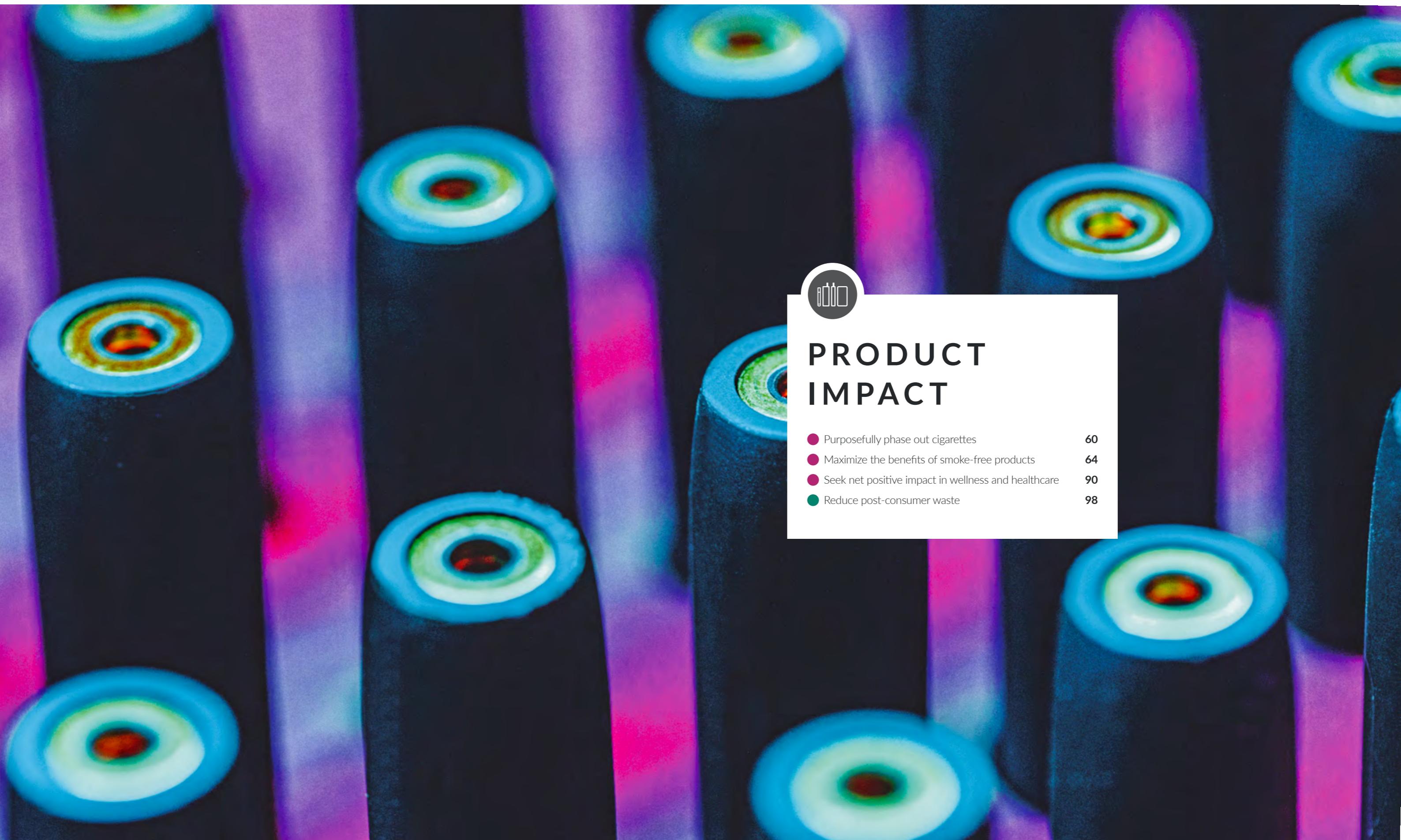
Following our risk response to the outbreak and spread of COVID-19 in 2020 and 2021, we have structurally embedded certain risk management activities (for instance, the mobilization of local risk functions in the rapid testing and validation of centrally issued guidance in response to risk) in our overall approach to risk management.

Finally, we disclose the company's risk factors in our 10-K and 10-Q submissions to the U.S. Securities and Exchange Commission. Our latest submissions are available on [PMI.com](#).



As ESG objectives have become a cornerstone of our corporate strategy, we will continue to strengthen the integration of ESG-related risks into our risk management and internal control practices.

Marie-Pauline Lauret
Global Head of Risk & Controls



**PRODUCT IMPACT**

Purposefully phase out cigarettes

Pre-transformation (in 2015), our combustible product volume totaled 881 billion units, or 99.9 percent of our shipment volume ratio, and, since then, in only seven years, it has declined by more than 26 percent. Over the same period, our smoke-free shipment increased to 95 billion units, representing 12.8 percent of our shipment volume in 2021.

Our goal

Intentionally work toward phasing out cigarettes by ensuring that smoke-free products represent at least 30 percent of our shipment volumes and more than half of our net revenues by 2025 while continuing to reduce our combustible shipment volume.

For many decades, public health strategies to reduce tobacco-related morbidity and mortality focused primarily on preventing smoking initiation and encouraging smokers to quit. Novel, scientifically substantiated smoke-free products now provide regulators the opportunity to supplement and significantly strengthen the existing public health approach by encouraging adult smokers who do not quit to switch to scientifically substantiated better alternatives to continued smoking.

"We can make an important contribution to accelerating the end of smoking. To achieve this objective, we are dedicating the vast majority of our resources to commercializing our smoke-free products. Everyone within our organization—regardless of business function—plays a crucial role in delivering on this purpose. We recognize that PMI alone cannot achieve a smoke-free future. Such systemic change requires a collaborative multistakeholder approach. In particular, we actively advocate for others in the industry to follow our lead by transforming their businesses, phasing out cigarettes, and reporting transparently on progress."

Jacek Olczak, Chief Executive Officer

A future where PMI's success is no longer based on cigarettes

Our priority is to address the health impacts associated with smoking by offering smoke-free, science-based alternatives that have been proven to be a far better choice than cigarettes for those adults who would otherwise continue to smoke. However, we do not believe it is enough to simply offer more choice to consumers. Rather, we are seeking to help adult smokers switch to the better alternatives now available and put cigarettes behind them. And we are seeking to work with policymakers to ensure these products replace cigarettes as quickly as possible.

Our commitment is unwavering. We have set the ambition to generate at least 50 percent of our adjusted net revenues from smoke-free products by 2025—just 10 years after our first full IQOS launches.

To accelerate our transformation, we are dedicating the vast majority of our resources to the commercialization of our smoke-free products and we have streamlined our cigarette portfolio to offer fewer brands and variants. Specifically, smoke-free products represented 73 percent of our commercial expenditure in 2021 (2020: 76 percent). Moreover, our combustibles product shipment volume decreased by 26.3 percent versus 2015. Our Business Transformation Metrics provide a more comprehensive overview of our progress and our efforts to shift resources to best deliver on our company's purpose (see [here](#)).

To progress on our smoke-free journey, it is however essential that we maintain our competitive position in the cigarette market during the transition period. It allows us to focus our commercial efforts toward raising awareness of—and informing adult smokers about—smoke-free products and the benefits of switching versus continued smoking. It also generates the financial resources needed to continue investing in scientific research, and product development, and to the manufacture and commercialization of smoke-free products. In this regard, the extensive commercial and distribution infrastructure in place for our traditional tobacco business provides an effective platform for launching smoke-free products at scale.

While seeking to remain competitive in the cigarette segment for as long as needed, we carefully consider the commercial activities required to do so. We base our decisions on consumer insights, compliance with regulatory requirements, and adherence to our Marketing Codes. We are guided by our conviction that people who do not smoke should not start, those who do smoke should quit, and those adults who won't quit tobacco and nicotine altogether should switch to less harmful alternatives to cigarettes.



Appropriate regulation and taxation to drive cigarette obsolescence

Regulation of all nicotine-containing products (including both combustible and smoke-free) is essential. We advocate for a comprehensive and risk-proportionate regulatory framework that acknowledges that not all tobacco and nicotine products are the same. Regulation and taxation should subject the most harmful products—those that combust tobacco—to the most restrictive measures and should encourage those adults who would otherwise continue to smoke to switch to less harmful alternatives.

Several factors outside our control—government action, in particular— influence how quickly we can see an end to cigarettes. To speed up the process, regulators and public health authorities can ensure that adult smokers have access to accurate information about smoke-free products. They can introduce product standards to ensure that only scientifically substantiated smoke-free products are commercialized. And, through risk-proportionate regulation and taxation, they can provide the right incentives to encourage adults who smoke to switch from cigarettes to less harmful, scientifically substantiated alternatives and incentivize manufacturers to direct their investments and R&D toward these better products. The acceptability of smoke-free products for adult smokers must always be balanced against the objective of minimizing use by unintended audiences such as never smokers, former smokers, and youth.

Policy and regulation can accelerate or hinder progress toward a smoke-free future. Our ability to maximize access is subject to (the right kind of) regulatory frameworks enabling systems change and allowing these new products to replace cigarettes as rapidly as possible (see our [Stakeholder engagement](#) section).

Currently, some countries do not permit the sale of smoke-free products. We nevertheless continue to engage with stakeholders in these markets to advocate for regulatory frameworks that support tobacco harm reduction. We do not believe that banning smoke-free products is a rational policy, especially considering that these countries permit the sale of the most harmful forms of tobacco and nicotine consumption: cigarettes and other combustible tobacco products. Banning smoke-free alternatives runs counter to the aim of ending cigarette use.



Supply and demand measures that can accelerate change

PMI is committed to delivering a smoke-free future. Once smoke-free products represent a viable segment of the nicotine marketplace with the potential to move most adult smokers away from combustible tobacco use, governments can implement additional industry-wide measures to phase out cigarettes altogether.

We believe that a clear roadmap agreed by political, regulatory, and public health stakeholders, supported by both civil society and businesses, offers the best prospect for further accelerating the end of smoking.

Such a roadmap may consist of elements addressing:

- Increased investment in prevention, quitting campaigns, and cessation services, with a particular focus on vulnerable populations
- Measures to address adult smokers' confusion about the role of combustion and nicotine in the development of smoking-related disease
- Regulatory and fiscal differentiation between combustible products and non-combusted forms of tobacco and nicotine, coupled with robust safeguards against unintended use
- Post-market monitoring and surveillance to assess public health outcomes and the impact of policy interventions
- Phase-out policies to help permanently end smoked tobacco sales
- Post-phase-out support for adult smokers who still continue smoking
- Robust anti-illicit trade policies



PRODUCT IMPACT

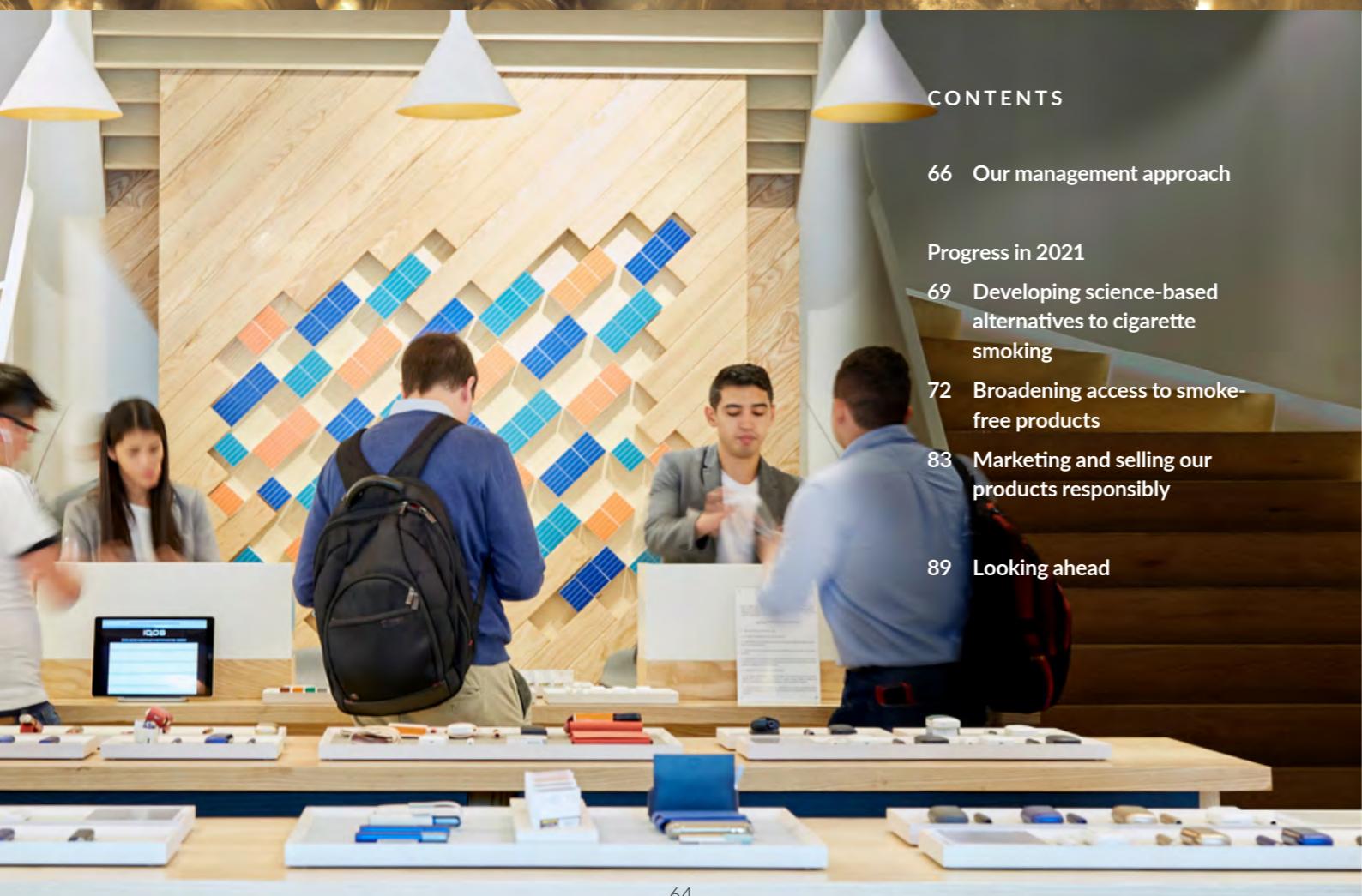
Maximize the benefits of smoke-free products

At PMI, we want to accelerate the end of smoking. To that end, we are transforming our operations and value chain to develop and commercialize science-based better alternatives to smoking.

CONTENTS

66 Our management approach**Progress in 2021**

- 69 Developing science-based alternatives to cigarette smoking**
- 72 Broadening access to smoke-free products**
- 83 Marketing and selling our products responsibly**
- 89 Looking ahead**

**The right thing to do**

Cigarette smoking is the most dangerous form of nicotine consumption. People who do not smoke should not start. Those who do smoke should quit. And those adult smokers who would otherwise continue to smoke should switch to the better alternatives to cigarettes now available.

Our priority is to address the health impacts associated with smoking by offering scientifically substantiated options that have been demonstrated to be a far better choice than continued smoking. We then chose to go beyond that by giving these products the purpose of replacing cigarettes, helping achieve the end of smoking.

Our purpose is to make our legacy product, cigarettes, obsolete. The public health benefit of smoke-free products depends not only on their potential to reduce the risk of smoking-related disease compared with continued smoking but also on adult smokers using these products instead of cigarettes.

This is critical to achieve the expected public health benefit. For that, broadening access is key, and we are committed to improving consumer awareness, while also making smoke-free products more acceptable, available, and affordable to adults who smoke.

The business case

The future of nicotine is undisputedly in smoke-free products, which are experiencing rapid growth. Through our early and sustained investment in R&D and consequent leadership in technology and innovation, we have built a powerful position and competitive advantage.

By focusing our commercial expenditure on encouraging adult smokers who otherwise would not quit, to switch fully to better alternatives, we aim to reach as many adult smokers as possible in as many markets as possible; this includes the around 130 million PMI cigarette smokers, as well as the hundreds of millions of adult smokers who buy competitor brands. The business case is clear: Our smoke-free product consumables drive higher net revenues per unit than cigarettes, with accretive product contribution per unit already helping to generate attractive returns on our significant upfront and ongoing investments in developing the category. We are also gaining share of the total tobacco market, thereby increasing our current and future revenue base. We are committed to marketing and selling our products responsibly. Concerns that our products, marketing, or sales could discourage smoking cessation, encourage initiation of nicotine use, or hold particular appeal to minors would undermine our credibility, harm our reputation, and potentially trigger adverse regulation, hampering our ability to achieve a smoke-free future as fast as possible.

OUR ASPIRATIONS

(SI) Sustainability Index

Maintain	>90% (SI)	of shipment volume covered by markets with youth access prevention programs in indirect retail channels
2023	100%	of PMI smoke-free electronic devices introduced to the market as of 2023 equipped with age-verification technology
2025	~40% reduction in our combustible product shipment volume versus 2015 baseline	<550 bn combustible product shipment volume
	>30% (SI) smoke-free product shipment ratio (smoke-free/total)	>250 bn smoke-free product shipment volume
	>50% (SI) net revenues (smoke-free/total)	100 (SI) Number of markets globally where PMI smoke-free products are available for sale
	>50% (SI) of markets globally where PMI smoke-free products are available for sale that are low- and middle-income markets	>40 m adult smokers globally who switch to PMI smoke-free products

Note: In 2022, we plan to evaluate our published targets to ensure they remain ambitious, reasonable, and achievable in the context of a dynamic and evolving smoke-free industry. See page 34.

Our management approach

Addressing the impact of our combustible products on consumers' health is at the core of our strategy and company purpose.

We deploy a four-pronged approach:

1. Develop science-based, less harmful alternatives to cigarette smoking
2. Broaden access to smoke-free products for those adults who would otherwise continue to smoke, ensuring this helps accelerate smoking prevalence decline
3. Purposefully phase out cigarettes (read more [here](#))
4. Market all our products responsibly

In 2021, we established a category management structure to accelerate delivery of a smoke-free future. Under this structure, strategic responsibility for our smoke-free and combustibles businesses, respectively, rest with two members of our Company Management: our President, Smoke-Free Products Category & Chief Consumer Officer and our President, Combustibles Category & Global Combustibles Marketing.

Our President, Smoke-Free Products Category & Chief Consumer Officer oversees smoke-free products, driving their growth trajectory, fostering consumer-centricity, and leveraging the strengths of our markets and regions.

In complement, a team led by our Chief Product Officer continuously develops and enhances PMI's smoke-free products, drawing on consumer feedback and technological innovations. Our Operations function—led by our Senior Vice President, Operations—works to ensure our manufacturing capabilities meet the demand for smoke-free products.

The smoke-free and combustibles category presidents oversee the deployment of our marketing and sales activities and adherence to our Marketing Codes. The Codes are subject to a robust governance process established in 2021. The newly formed Marketing Review Council guides the implementation of these Codes across the organization.

To make our progress measurable and verifiable, we developed a set of bespoke key performance indicators (KPIs), which we call our Business Transformation Metrics. These metrics, which we report on periodically, allow our stakeholders to assess both the pace and scale of our transformation. Over the years, based on stakeholder feedback, we have expanded the number of metrics to increase transparency and clarity about our progress.

Our Business Transformation Metrics also showcase how we are allocating resources away from our traditional cigarette business, aiming to base our success on a future in which we no longer make or sell cigarettes. Read more [here](#).



Develop science-based, less harmful alternatives to cigarette smoking

Through more than a decade of substantial investment in R&D, we have developed products that provide the satisfying experience of consuming nicotine without burning tobacco.

We implemented a rigorous scientific assessment program that aims to align with the U.S. Food and Drug Administration's (FDA's) 2012 draft guidance on modified risk tobacco products (learn more about how we conduct our R&D [here](#) and on [PMIscience.com](#)). Our program, in line with epidemiological and toxicological principles, aims to compare the health outcomes of switching to smoke-free products versus continued smoking. In addition to aerosol chemistry and nonclinical and clinical studies, our assessment program incorporates consumer behavior studies. These allow us to monitor and evaluate the use of our smoke-free products by intended audiences and not by youth, former smokers who have quit nicotine and tobacco altogether, or those who have never smoked. In addition, following market launch, we continuously monitor the safety profile of our smoke-free products to ensure that any new or different health risks associated with their use can be identified in a timely fashion, should they occur, and are managed appropriately. We have put a rigorous global safety surveillance process in place to monitor and respond to potential safety signals. Based on the data collected, we provide annual safety update reports, which include notifications received directly from consumers, and we share them with several regulators, including the FDA.

Developing and expanding our human, intellectual, and social capital is key to our transformation. Our two main R&D centers, located in Switzerland and Singapore, employ hundreds of scientists, engineers, and other experts working to develop, improve, and assess smoke-free products. This work is headed by our President Vectura Fertin Pharma and Chief Life Sciences Officer, Chief Product Officer, and President, Smoke-Free Products Category & Chief Consumer Officer, who are members of PMI's Company Management.

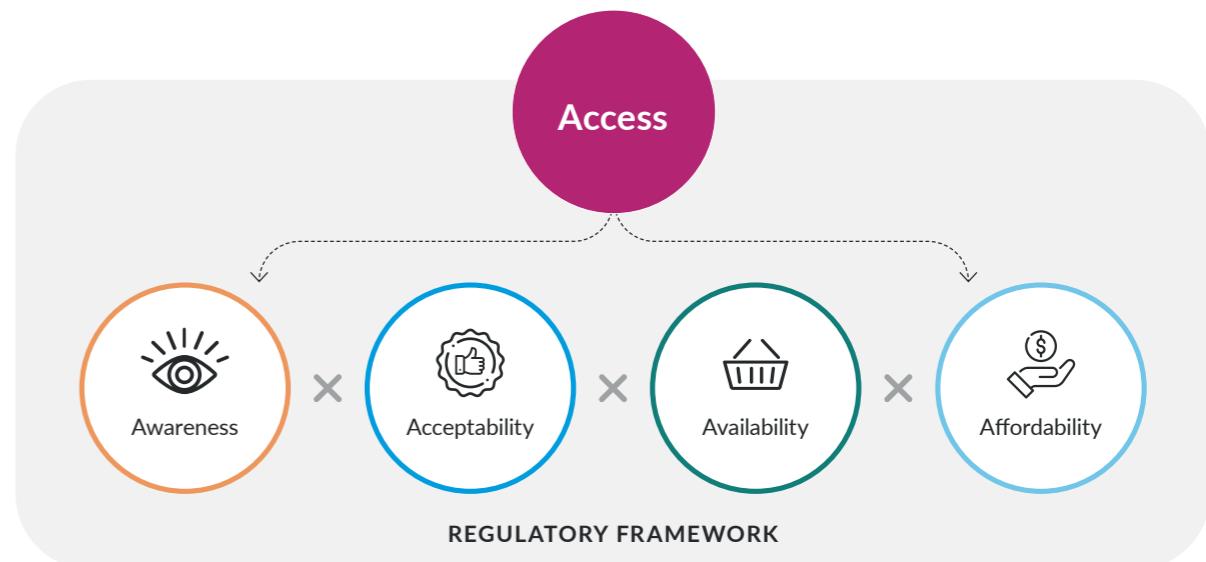
Broaden access to smoke-free products to help accelerate smoking prevalence decline

PMI is developing and scientifically assessing products that present, are likely to present, or have the potential to present less risk of harm than continued smoking. Now, to achieve a smoke-free future faster and put cigarettes behind us, we need to ensure that adult smokers have access to these better products.

By access, we mean that:

- Adult smokers are **aware** of the benefits of switching to smoke-free products compared with continued use of combustible tobacco products.
- The products are **accepted** by adult smokers as a viable alternative to cigarettes.
- The products are conveniently **available** for sale to adult smokers.
- Smoke-free products are **affordable** to adult smokers.

In this context, a regulatory framework allowing the products to be sold and adult smokers to know that these products exist and are available is essential.





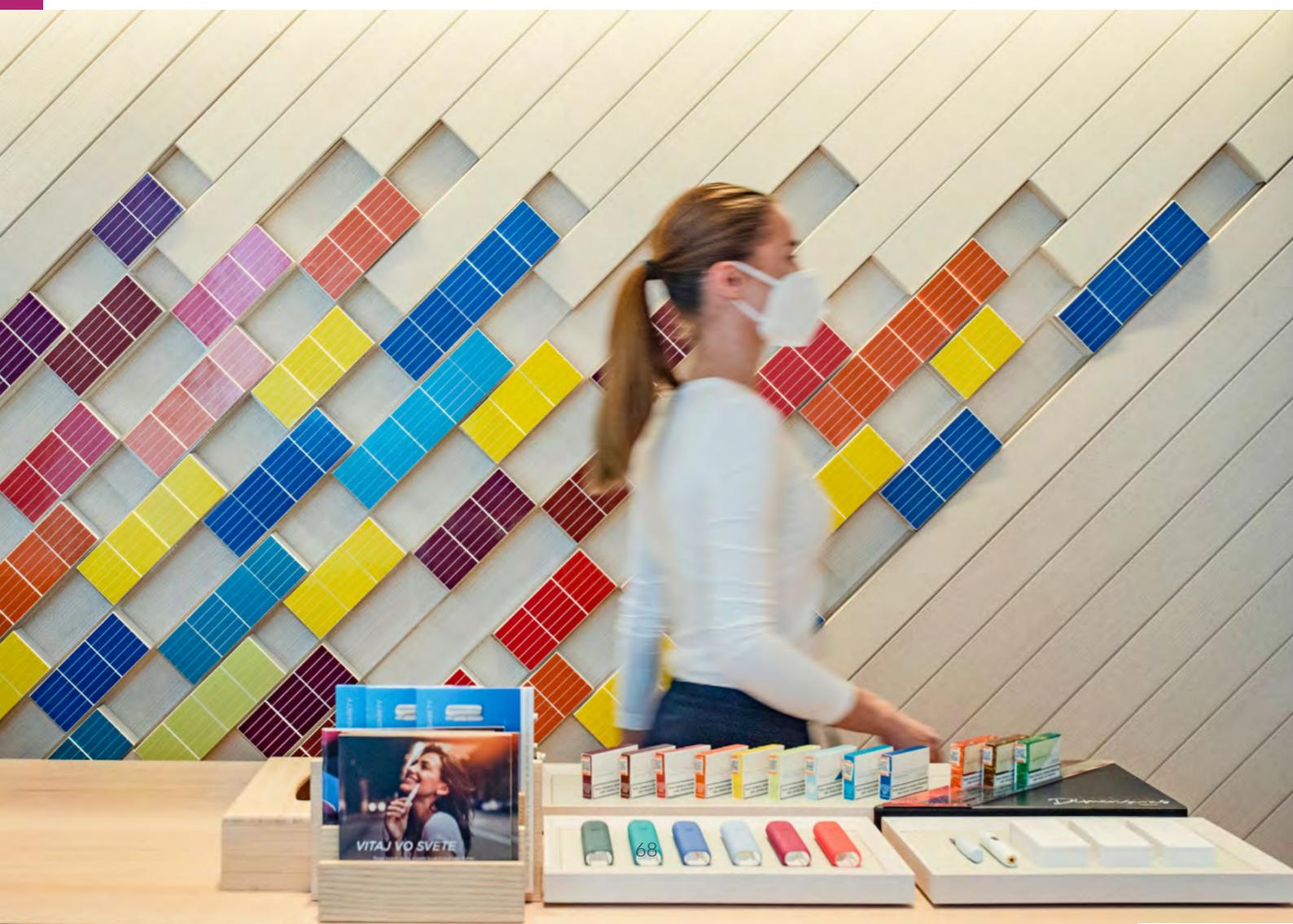
Market all our products responsibly

Even as we work to make them obsolete, cigarettes continue to represent the majority of our net revenues—and are likely to do so until 2025 (see our [2025 Roadmap](#)). Accordingly, when we establish policies and practices that guide the responsible commercialization of our products, these include the totality of products being sold by PMI—both smoke-free and combustible products.

Implementing appropriate supply and demand measures can help maximize the public health benefits smoke-free products bring at a population level. Raising awareness while minimizing the risk of unintended consequences is vital. This includes ensuring these products are marketed and sold responsibly to adult consumers of nicotine-containing products. Fundamental to achieving this objective is conducting marketing and sales activities that provide clear and meaningful information about our products, including the risks associated with their use.

Our commercialization activities across the world are guided both by applicable laws and by a set of core principles:

- PMI products are only for adults who smoke or use other nicotine-containing consumer products.
- We warn consumers about the health effects of our products.
- We communicate about our products to enable adult consumers to make informed choices.
- We market our products truthfully and transparently, with claims that are accurate and not misleading.
- We design, develop, and commercialize our products in ways that are consistent with our smoke-free purpose.



Progress in 2021

Developing science-based alternatives to cigarette smoking

Scientific research and product innovation can advance tobacco harm reduction and benefit adult smokers, thereby positively impacting public health. To this end, we will continue to invest in science and in the development and acquisition of products and technologies.

PMI's scientific assessment of smoke-free products

We dedicate almost all of our adjusted R&D expenditure (99 percent in 2021) to smoke-free products, including wellness and healthcare products. These expenditures include costs related to clinical studies, the development of machinery, prototypes, and product acceptability testing, and innovation in materials and design to create better and more sustainable products. The remaining 1 percent is associated with our combustible tobacco products, largely allocated to meeting regulatory compliance requirements and sustainability considerations, including the development and introduction of more sustainable filter materials ([read more here](#)).

Since 2008, PMI has invested over USD 9 billion in research, product development, production capacity, scientific substantiation, and studies on adult smoker understanding.

Our smoke-free product portfolio includes heat-not-burn and e-vapor products, as well as oral nicotine products. They are developed and manufactured according to high standards of quality and consistency.

As of year-end 2021, our R&D work and its associated innovations have resulted in 1,770 patents granted for smoke-free technologies by the five largest intellectual property offices in the world (IP5).

Our most thoroughly assessed smoke-free product is the IQOS tobacco heating system (see the [next page](#)). We apply rigorous science to substantiate its harm reduction potential compared with cigarette smoking, including systems toxicology, preclinical and clinical assessments, and perception and behavior assessments.

The results of our studies are publicly available, published in peer-reviewed scientific publications, and have been submitted to numerous regulatory authorities, including the U.S. Food and Drug Administration (FDA).

In July 2020, the FDA authorized the marketing of the 2.4 version of PMI's IQOS tobacco heating system as a modified risk tobacco product (MRTP) with reduced exposure information.

This followed the agency's April 2019 authorization of the marketing of the IQOS tobacco heating system as "appropriate for the protection of public health" pursuant to the premarket tobacco product application (PMTA) pathway. On March 11, 2022, the FDA authorized the marketing of PMI's IQOS 3 tobacco heating system as an MRTP with reduced exposure information.¹

For our e-vapor products, we have performed preclinical assessment and are executing clinical and perception and behavior studies.

The totality of the scientific evidence makes us confident that switching completely from cigarettes to smoke-free products is likely to present less risk of harm than continuing to smoke. Post-market studies are necessary to continue building this confidence and, over time, quantify the reduction in morbidity and mortality through epidemiology.

During the assessment of smoke-free products, several lines of evidence come into play and complement one another: Evidence from controlled scientific experiments answers precise, predefined questions, while evidence collected from the real world helps researchers understand the uptake, use, and health effects of a product in real-life settings. To date, real-world evidence indicates that introducing heated tobacco products can have a beneficial impact on a population as a whole. The launch of heated tobacco products in Japan coincides not only with a reduction in cigarette sales but also with a decrease in hospitalization rates due to chronic obstructive pulmonary disease exacerbation and ischemic heart disease.² We will continue to gather and evaluate real-world data; in particular, epidemiological data from long-term follow-up studies that include information on other variables that might impact the risk of developing smoking-related diseases as well as lifestyle and other environmental factors (e.g., diet, pollution). The cumulative evidence on our smoke-free products to date, including both experimental and real-life data, points firmly in the direction of harm reduction.

1 Source: <https://www.fda.gov/tobacco-products/advertising-and-promotion/philip-morris-products-sa-modified-risk-tobacco-product-mrtp-applications>. Note: The FDA does not endorse or approve tobacco products.

2 Observational time-trend analysis looking at temporal associations and not designed to assess cause and effect. Specific factors associated with changing hospitalization rates over time have not been fully analyzed. Subject to inherent limitations of ecological analysis.



Overview of IQOS scientific substantiation

PLATFORM DEVELOPMENT

A smoke-free product's risk reduction potential relies on the quality of the initial product design and on strict manufacturing controls to ensure that the product delivers a consistent aerosol.



TOXICOLOGICAL ASSESSMENT

Toxicological assessments are used to determine whether the reduced formation of HPHCs leads to reduced toxicity and reduced risk of smoking-related diseases in laboratory models.



CLINICAL ASSESSMENT

Clinical assessments help determine the extent to which adult smokers would find the product an acceptable alternative to cigarettes. They assess whether a reduction in the formation of HPHCs measured in the laboratory leads to a reduction in HPHC exposure when an adult smoker switches to the product and investigate whether switching from cigarettes to a smoke-free product has a beneficial effect on a smoker's health profile by reducing the risk of smoking-related diseases compared with continued smoking.



- No combustion in our IQOS tobacco heating system:** The primary cause of smoking-related disease is the long-term exposure to the high levels of harmful chemicals generated by burning tobacco. By avoiding combustion, we can significantly reduce or eliminate the formation of harmful and potentially harmful constituents (HPHCs).
- Reduction in emissions of harmful and potentially harmful constituents:** We compared the chemical composition of the aerosol produced by IQOS with the smoke from a reference cigarette designed for scientific research purposes and found that the levels of HPHCs in the aerosol are reduced on average by 90 to 95 percent compared with those found in the reference cigarette's smoke. In addition, extensive chemical characterization of the IQOS aerosol showed that there are approximately 10 times fewer constituents in IQOS aerosol than in the reference cigarette smoke.
- No negative impact on overall indoor air quality:** We also conducted chemistry and quality studies, which demonstrated that the use of IQOS does not negatively impact indoor air quality.

- Reduced toxicity:** We conducted toxicological studies for IQOS, both in vitro and in vivo, to determine whether the reduced formation of HPHCs in the aerosol leads to reduced toxicity. Results from the in vitro studies show that the IQOS aerosol is significantly less cytotoxic and genotoxic than the smoke from cigarettes. The in vivo studies found that, compared with cigarette smoke, the reduced exposure to toxicants results in significantly reduced lung inflammation and respiratory toxicity.
- Reduced risk of cardiovascular disease, chronic obstructive pulmonary disease (COPD), and lung cancer in laboratory models:** We conducted several systems toxicology studies to assess the disease-relevant biological mechanisms affected by exposure to toxicants, using human-derived in vitro cell cultures and organotypic tissue cultures. These showed that, compared with the reference cigarette smoke, the IQOS aerosol has a significantly reduced impact on key mechanisms involved in the development of respiratory and cardiovascular diseases. We also completed an in vivo study to assess the potential of the IQOS aerosol to reduce the risk of lung inflammation, emphysema, and lung cancer compared with cigarette smoke. The results of this study show that, in contrast to cigarette smoke, the aerosol of IQOS does not increase the incidence and number of lung tumors. It also confirmed a significantly reduced effect of IQOS aerosol on lung inflammation and emphysema.

- Nicotine uptake:** When a smoker is switching to IQOS, the nicotine uptake and urge-to-smoke scores are comparable to continued smoking. This suggests that switchers can find IQOS acceptable and satisfying as an alternative to smoking.
- Reduced exposure to harmful chemicals:** Our clinical studies on IQOS completed to date have involved thousands of participants and up to 12 months of exposure. They have found that smokers who switched completely to IQOS during the studies were exposed to significantly lower levels of harmful chemicals compared with those who continued to smoke. Further, they showed that the levels of 15 biomarkers of exposure in participants switching completely to IQOS were comparable to the levels of those who quit tobacco and nicotine for the duration of the study.
- Positive impact on smokers' health:** In a six-month clinical study of healthy volunteers, we measured eight health indicators that are known to change favorably following smoking cessation. We observed that after participants had switched from smoking to IQOS for six months, each of these indicators improved in the direction expected upon smoking cessation, five of them with statistical significance. We completed a six-month extension study to understand what the same markers look like 12 months after switching.

PERCEPTION AND BEHAVIOR

Perception and behavior studies help us evaluate risk perceptions and patterns of use of smoke-free products among various adult consumer groups. For smoke-free products to have an overall positive impact on public health, it is important that adult smokers use them, that those intending to quit tobacco and nicotine altogether are not dissuaded by these products, and that nonsmokers do not use them.



- Good product understanding and low intent to use among nonsmokers:** The results of our premarket studies show that the adult consumer groups tested have a very good understanding that IQOS presents less risk of harm than cigarettes but is not risk-free and that it is riskier than nicotine cessation. Additionally, when assessed in the context of specific communication materials, more than 90 percent of participants in consumer studies understood that IQOS is not intended for nonsmokers, and more than 80 percent comprehended that quitting the use of tobacco and nicotine altogether is the best way to reduce the risk of tobacco-related diseases.

- Post-market monitoring and use patterns:** We constantly monitor reports to identify safety concerns and health-related adverse events potentially associated with the use of our smoke-free products. Further, we conduct post-market studies to understand how IQOS is used and by whom, helping us measure the extent to which adult smokers switch to the product. By conducting repeated studies in 53 countries among adult IQOS users, involving in total about 70,000 participants, we have been able to measure IQOS use patterns among adult users over time. Overall, the data from these studies confirm that IQOS is reaching the intended audience of adult smokers (with a significant proportion of individuals who purchase the product switching fully to it and stopping smoking) and is of very limited interest to adults who have never used nicotine products or who had already stopped using tobacco. Finally, our post-market studies confirm that consumers understand that IQOS presents less risk than cigarettes but is not risk-free and presents more risk than tobacco and nicotine cessation.

LONG-TERM ASSESSMENT

We continue to assess our smoke-free products after they are on the market. Long-term assessment will confirm whether these products reduce the risk of smoking-related disease.



- Long-term effects of product use:** Long-term epidemiological data are needed to accurately quantify the overall disease risk reduction effect associated with switching from cigarette smoking to the use of smoke-free products, as well as to evaluate the excess disease risk associated with the use of these products compared with not using tobacco and nicotine. Generating reliable epidemiological evidence requires that smoke-free products be available on the market for many years. Further, the products must be used for a sufficiently long period by a sufficient portion of adult smokers who have switched to them. This renders epidemiological studies impracticable in a premarket setting or in the early phase of market introduction.

- Real-world evidence:** We initiated time-trend studies in 2020 to complement our other research. These studies use existing data to estimate the prevalence and incidence of disease. They explore factors associated with health outcomes at the population level. Independent evidence already links the launch of IQOS to an accelerated decline in cigarette sales in Japan, the first country in which IQOS was launched nationwide, in 2015. We assessed time series of Japanese hospital data and health insurance claims for two smoking-related diseases (chronic obstructive pulmonary disease and ischemic heart disease) to detect a potential impact of the introduction of IQOS at the population level. We obtained hospitalization rates for selected smoking-related endpoints: COPD, COPD exacerbations, and ischemic heart disease. This data came from two databases: Medical Data Vision and Japan Medical Data Center. We compared rates of hospitalization for these endpoints before and after the introduction of heated tobacco products (HTPs) in Japan. We found that observed hospitalization rates dropped below predicted rates shortly after launch. Those decreases so far are modest but measurable. There are many limitations to this type of research, and these results by themselves do not indicate a causal relationship. We are therefore assessing the possibility of running the same type of assessment in other countries where HTP uptake is sufficient and real-world datasets are available. In addition, independent studies that measure disease risk using epidemiology are starting to emerge (see the example from South Korea using data from the National Health Insurance Service on the [next page](#)).

→ Visit PMIscience.com to read our scientific results to date with our smoke-free products



Growing external scientific consensus

We welcome and encourage independent research on our products, methods, and results. Over the past several years, a growing number of organizations and institutions have initiated studies of our smoke-free products or the methods and results surrounding them.

Several government agencies have already reviewed the available evidence or conducted research of their own (see overview on [PMI.com](#)). In addition to studies on aerosol chemistry and toxicology, the first independent clinical and post-market studies have begun to emerge.

One example of encouraging real-world evidence supporting the harm reduction potential of smoke-free products comes from South Korea. By using data from their National Health Insurance Service researchers were able to showcase that, compared with continued smoking, switching to smoke-free products was associated with 23 percent lower risk of developing cardiovascular disease among both recent switchers and long-term switchers.¹ Long-term quitters, or those who had quit all products for more than five years, were associated with 37 percent lower risk.

The list of independent studies (close to 280 in total) published around PMI's smoke-free products or our methods and results as of March 16, 2022 is available on [PMIscience.com](#). In general, these studies confirm PMI's results. However, some approach the data differently (e.g., using fresh air as the comparator instead of cigarette smoke), have methodological differences (e.g., enrolled populations, studies that do not follow OECD guidelines), or overstate conclusions.

Broadening access to smoke-free products

The public health benefit of smoke-free products depends not only on their potential to reduce the individual risk of smoking-related disease but also on their actual use by adult smokers as alternatives to cigarettes and other combusted tobacco products. For smokers to switch to them, these alternatives must be known and accessible. To the extent permitted, we deploy relentless efforts to improve and increase consumer awareness, acceptability, availability, and affordability of our smoke-free products.

Acting on these four access drivers will best position us to achieve two critical ambitions by 2025: for our smoke-free products to be available for sale in 100 markets and for at least 40 million adults to have switched to them and stopped smoking. We want our smoke-free products to serve every adult smoker who does not quit smoking, and we plan for at least half of those markets to be in low- and middle-income markets, bolstered by new innovative solutions for consumers with lower purchasing power.

As of the end of 2021, 21.7 million adults were using our smoke-free products, of whom we estimate that 15.3 million had switched to these products and stopped smoking, and PMI smoke-free products were available for sale in 71 markets.

¹ Source: Choi S, et al. Combined Associations of Changes in Noncombustible Nicotine or Tobacco Product (NNTP) and Combustible Cigarette (CC) Use Habits With Subsequent Short-Term Cardiovascular Disease Risk Among South Korean Men. A Nationwide Cohort Study. *Circulation*. 2021. Observation period 2018-Dec 2019 Source: Data available on <https://doi.org/10.1161/CIRCULATIONAHA.121.054967>

Note: The study has several limitations, including that the follow-up is too short to make any conclusive remarks based solely on this study.

CASE STUDY

Association between the introduction of heated tobacco products and declines in cigarette smoking

Minimizing tobacco-related harm at the population level depends not only on the degree of risk reduction of the smoke-free products, but also on their adoption by adults who would otherwise continue to smoke. This case study looks at the impact of the introduction of heated tobacco products on cigarette sales and smoking prevalence in two countries with the highest market share of heated tobacco products in the world, namely Japan and Lithuania.

[Read more in our case study here.](#)



INCREASING AWARENESS

We want those adults who would otherwise continue to smoke to understand the risks and benefits of our smoke-free products compared with continued cigarette use. They also need to understand that quitting tobacco and nicotine altogether is the best option and that smoke-free products are not risk-free and contain nicotine, which is addictive.

We apply strict principles regarding with whom, how, and where we communicate about the existence and risks and benefits of our smoke-free products. These principles are crystallized in our Marketing Codes.

We seek to provide accurate and non-misleading information so that those adults who would otherwise continue to smoke are motivated to switch. Our premarket and post-market studies guide our consumer-facing activities and communication, including the internal assessment of product claims and consumer messages. A cross-functional team of scientists, market researchers, lawyers, communication experts, and marketers review product claims and consumer messages about our product features and benefits, ensuring that all statements are accurate, clear, and non-misleading.

The lack of information about—and awareness of—smoke-free products presents a big hurdle to achieving tobacco harm reduction. It is also potentially the easiest to overcome: Public health policymakers, regulatory bodies, the scientific community, and civil society have a big impact on smokers' decisions. It is therefore imperative that these entities do their part in informing adult smokers who otherwise would not quit about the risks and benefits of switching to smoke-free products.

As of the end of 2021, we estimate that only 25 percent of adult smokers in the markets in which PMI commercializes IQOS were aware of the product's features and benefits compared with cigarette smoking.¹

Informing the world about the smoke-free category

Unlike combusted tobacco products, smoke-free alternatives are a new product category and are still relatively unfamiliar to most people. In 2019, we launched "Unsmoke"—a global corporate campaign deployed across various online and offline communications channels to address widespread misconceptions about the smoke-free category and the concepts that underpin it (e.g., combustion, the role of nicotine, and the potential of these products for public health).

The campaign's core message is simple:

"If you don't smoke, don't start. If you smoke, quit. If you don't quit, change."

Currently, the campaign encompasses two distinct strands:

- **Unsmoke Your World (UYW):** Calls for positive change by reinforcing that quitting tobacco and nicotine altogether is the best choice and informing the adult general public that better, smoke-free alternatives exist for those adult smokers who would otherwise continue smoking. It also encourages the public to get involved and calls for regulation that would allow adult smokers access to—and information about—better alternatives.

- **Unsmoke Your Mind (UYM):** Speaks to the regulatory and scientific community and other stakeholders with an interest in tobacco harm reduction policy. UYM challenges misconceptions around the smoke-free category and calls for an open and transparent conversation to support risk-proportionate regulation that differentiates smoke-free products from cigarettes. It also urges policymakers to put science and evidence at the center of decision-making.

¹ In 2021, we improved our market research methodology by expanding beyond specific geographic focus areas (e.g., key cities) to full national coverage of our surveys, making a year-on-year comparison impossible. Applying the previous methodology and considering the same 54 markets covered in 2020, however, the proportion has increased from 36 percent in 2020 to 40 percent in 2021.

Communicating and engaging with adult consumers

Although smoke-free products have been commercialized in many countries and for many years, a considerable proportion of adult smokers are still unaware that they exist and thus continue to smoke cigarettes. Further, the lack of understanding of the category and the potential benefits of switching to smoke-free products (compared to continued smoking) leaves many smokers unmotivated to switch. There also continues to be a profound lack of understanding that, when it comes to cigarette smoking, it is combustion, rather than nicotine, that is the primary cause of harm and disease (read more [here](#) about nicotine science).

To raise awareness, resolve biases, and clear up misconceptions, we engage with adult smokers to ensure they understand the facts underlying scientifically substantiated smoke-free products and why they can be a better choice than continuing to smoke. We also make sure smokers are aware that these better alternatives are not risk-free and in most cases contain nicotine, which is addictive. This comprehensive approach has been shown to improve consumer awareness and understanding of our products and the science and data behind them year-on-year.

User experience and utilization of smoke-free devices

As smoke-free products may not be as intuitive as cigarette smoking, we need to inform consumers of their proper use.

We do so while applying strict rules on how we communicate and engage with our adult consumers (read more [here](#)).

Further, to help adult smokers transition to smoke-free products, we are shifting to a more consumer-centric model. Establishing direct routes to consumers—including our stores and e-commerce channels—allows us to explain the products, their features, and their risks and benefits compared with continued smoking.

Leveraging the power of our brands to drive positive behavior change

We engage with adult smokers in a variety of ways, including, where permitted, by leveraging our cigarette packaging. JustScan (formerly ScanPack) is a mobile digital platform that allows adult smokers to access online content by scanning a QR code or using a weblink (typically featured on the cigarette pack insert). For communication on combustible products, the platform uses third party-tested facial age-estimation technology to limit targeted communication to adult smokers. In markets where smoke-free products are available, we leverage JustScan to drive awareness and support conversion to these products by providing adult smokers with access to content related to our smoke-free products. For example, in November and December 2021, our affiliate in Japan deployed JustScan to increase awareness of IQOS ILUMA, reaching close to 150,000 adult smokers. Globally in 2021, we used JustScan to successfully engage with close to two million adult smokers in 50 markets (2020: 850,000 adult smokers in 30 markets).



Reaching the right audience

Our marketing efforts are governed by our [Marketing Codes](#), which include provisions designed to ensure all our activities are directed only to adult current smokers and nicotine users and are not particularly appealing to minors (read more [here](#)). Our commercial activities must strike the right balance between encouraging adult smokers to switch to smoke-free products and minimizing the risk of unintended consequences such as youth access, initiation, and use by nonsmokers.

The results of our perception and behavior assessment studies conducted to date as part of the scientific assessment of our IQOS product show that the adult consumer groups surveyed have a very good understanding that IQOS presents less risk than cigarettes but is not risk-free and is riskier than tobacco and nicotine cessation. Additionally, when assessed in the context of specific communication materials, more than 90 percent of participants in consumer studies understood that IQOS is not intended for nonsmokers, and more than 80 percent comprehended that quitting the use of all tobacco is the best way to reduce the risk of tobacco-related disease.

Further, we conducted 12 studies of our heat-not-burn (IQOS) and e-vapor (IQOS VEEV) products in six markets in 2020–21, including interviews with more than 23,000 adults who were not consumers of tobacco or nicotine products. The results of those studies show very low intention to use our smoke-free products among adult former users of tobacco or nicotine products (0.6 percent) and adults who had never used tobacco or nicotine products (0.3 percent). We do not conduct studies involving individuals under the legal age to purchase tobacco products. However, results of our studies among the youngest legal age adults who were not consumers of tobacco or nicotine products—those aged 18 (or higher, depending on the legal age in the country) to 24—show a very low intent to use our smoke-free products (0.3 percent).

We also conduct post-market studies to understand how our smoke-free products are used and by whom once available for purchase in a market.

These are necessary to confirm the results of our premarket perception and behavior assessment studies and to measure the extent to which adult smokers switch to our smoke-free products. They also help us monitor whether never and former smokers use them. A cumulative total of more than 19,000 legal age adults in three markets (Germany, Italy, and Japan) have participated in our cross-sectional population-based studies. The data from these post-market studies confirm that IQOS is reaching the intended audience (adult consumers of nicotine products) and is of very limited interest to adults who had never smoked or had already quit using tobacco and nicotine. More specifically, the results show that more than 99 percent of IQOS users in Germany, Italy, and Japan were already using tobacco or nicotine products at the time they began to use IQOS.

In the U.S., our FDA MRTP exposure modification orders require that we submit a post-market surveillance and studies plan, which had to be approved by the agency. As part of that plan, an affiliate of Altria, who commercialized IQOS in the U.S., conducted a secondary analysis of their existing Underage Tobacco Use Survey data and found very low (less than 1 percent) past-30-days IQOS use among U.S. youth.¹

Overall, data from our studies, as well as independent studies,² confirm that IQOS is reaching the intended audience—adults who already smoke or consume tobacco or nicotine products—and is of very limited interest to youth and to adults who have never before used nicotine products or had already stopped using them.

1 Source: Estimates – July to November, 2021: <https://sciences.altria.com/-/media/Project/Altria/Sciences/library/Underage-Tobacco-Use-Survey/UTUS-Estimates-2021Q3Q4.pdf>

2 East KA, Reid JL, Rynard VL, Hammond D. Trends and Patterns of Tobacco and Nicotine Product Use Among Youth in Canada, England, and the United States from 2017 to 2019. J Adolesc Health. 2021 Sep;69(3):447-456. doi: 10.1016/j.jadohealth.2021.02.011. Kuwabara Y, Kinjo A, Fujii M, et al. Heat-not-burn tobacco, electronic cigarettes, and combustible cigarette use among Japanese adolescents: a nationwide population survey 2017. BMC Public Health. 2020; 20:741. Orth B & Merkel C. Smoking among teenagers and young adults in Germany: Findings from the Alcohol Survey 2018 and trends (in German). Federal Center for Health Education (BzgA). 2019. Delgrande Jordan M, Schneider E, Eichenberger Y, et al. La consommation de substances psychoactives des 11 à 15 ans en Suisse—Situation en 2018 et évolutions depuis 1986. Rapport de recherche N°100, Addiction Suisse. 2019



STRIVING FOR HIGH PRODUCT ACCEPTABILITY

Adult smokers will only switch completely to smoke-free alternatives if they prefer these products over cigarettes. Several factors play a role in driving consumer acceptance of smoke-free products: user experience (e.g., sensorial experience, product convenience, availability of product variants), their potential to present less risk of harm than continued smoking, and their nicotine profile.

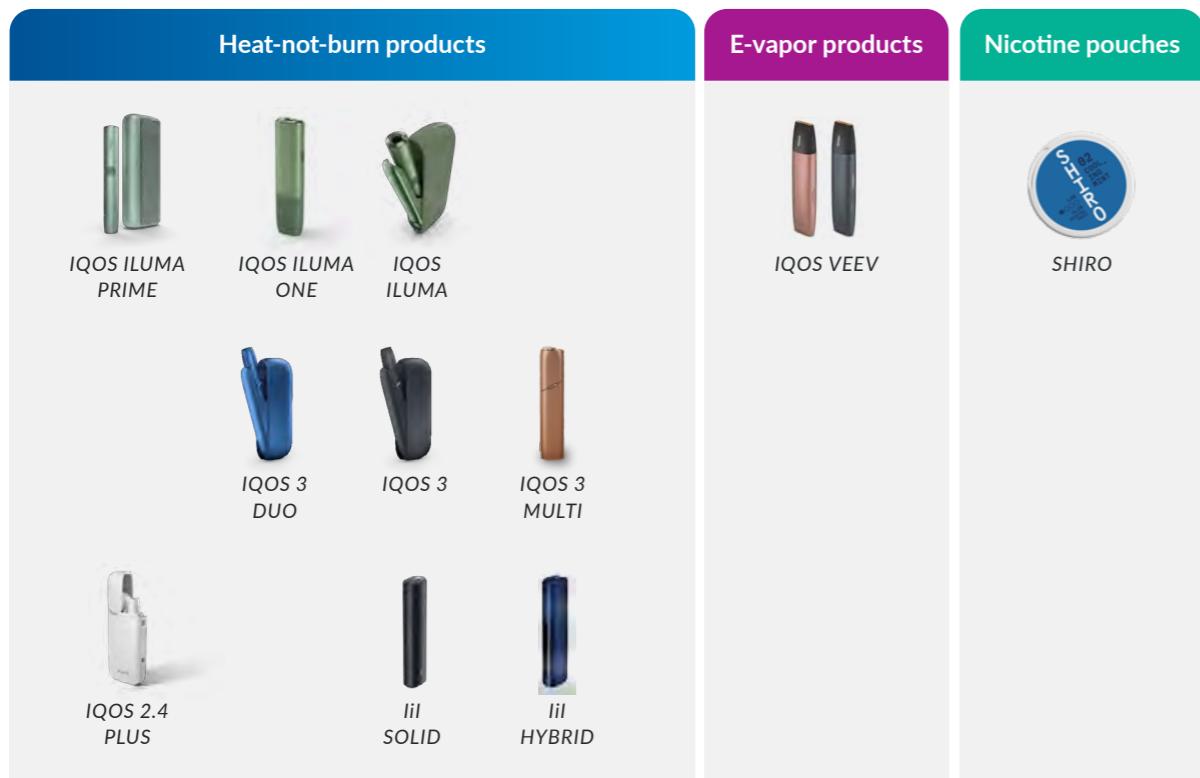
We consider the full conversion rate a critical indicator of whether our smoke-free products meet consumer expectations. This rate is the percentage of adults who switch to our smoke-free products and stop smoking cigarettes versus total adult users. In 2021, the global average full conversion rate for our main smoke-free product, IQOS, was 72 percent.

During the switching journey, most users undergo an adaptation process during which dual use (concurrent use of cigarettes or another nicotine product) may occur. Only by switching completely and abandoning cigarettes can consumers realize the full health benefits of smoke-free products. Our goal is to support consumers in making this transition as quickly as possible. Consumers who switch from cigarettes may also use different smoke-free products according to personal preferences and use occasions. Offering a broad range of acceptable smoke-free alternatives is thus critical.

Expanding our smoke-free portfolio

We understand that consumer tastes and preferences vary, and so a broader portfolio is likely needed to phase out cigarettes entirely.

We therefore continue to invest in improving our current products, developing new ones, and acquiring products and technologies that meet our scientific standards and can help us achieve our purpose. Read about the 30 years of innovation behind our leading heated tobacco product [here](#).



In 2021, we were commercializing 10 different heated tobacco and e-vapor devices and more than 900 smoke-free consumable stock-keeping units. Moreover, we also now have a small presence in nicotine pouches, with 23 stock-keeping units commercialized under the Shiro brand, which were available for sale in 15 markets as of year-end 2021.

Our success in smoke-free products is driven by continuous innovation. In 2021, we launched IQOS ILUMA—the next generation of IQOS devices, which use internal induction heating—and TEREZA heated tobacco unit (HTU) consumables in Japan and Switzerland.

We expect this innovative and intuitive device to support easier switching and higher conversion rates. IQOS ILUMA has received an overwhelmingly positive consumer response thus far, with strong demand reflected in initial 2021 device sales notably in excess of past IQOS launches.

A new heating technology with IQOS ILUMA

In 2021, PMI started commercializing a heated tobacco product with a method of heating the tobacco that is different from the previous generation of products in its portfolio.

IQOS ILUMA uses the innovative bladeless SMARTCORE INDUCTION SYSTEM™. The induction activates the heating element inside the specially designed tobacco stick. The tobacco is heated with improved draw and taste consistency from stick to stick, without the need for consumers to clean the device. IQOS ILUMA allows for two consecutive uses without recharging the holder.

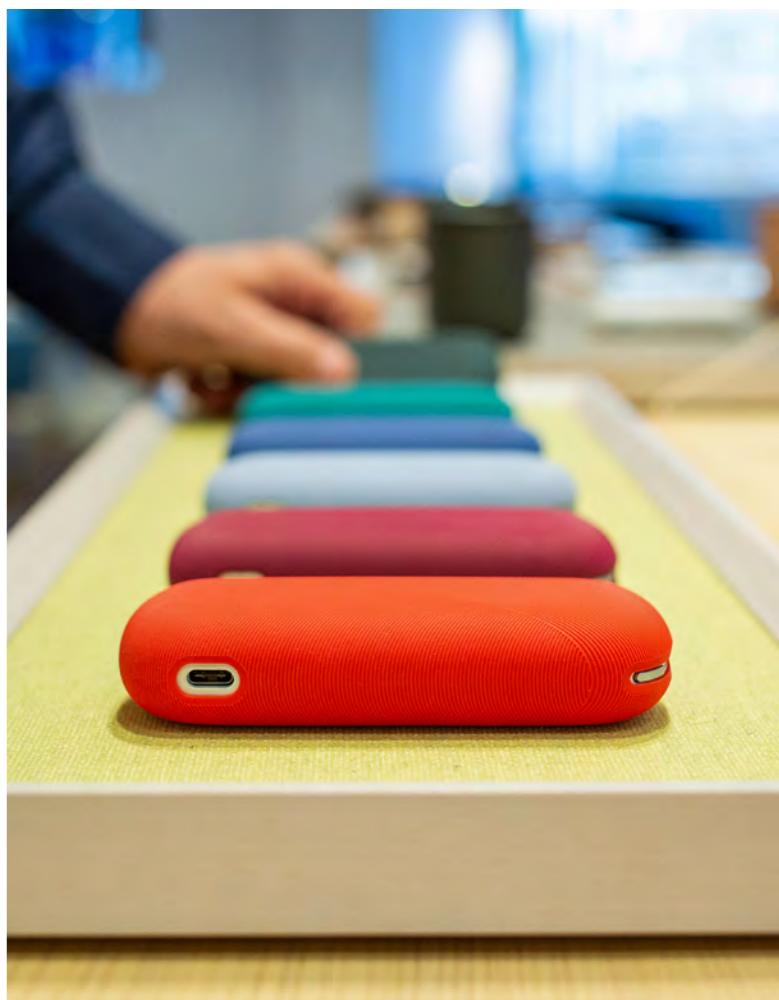
Read more about our heated tobacco technologies [here](#).

The role of flavors in smoke-free product acceptability

Smokers often find the difference in taste between smoke-free products and their preferred cigarette brand to be an obstacle to adoption or full conversion. In this context, flavors play an important role in helping adults who don't quit tobacco and nicotine use altogether to move away from cigarettes and accelerate their full conversion to better products.

To cater to a variety of tastes and maximize the probability of adult smokers considering switching instead of continuing to smoke, we make our smoke-free consumables available in a wide range of taste variants (more than 40 for our IQOS HTUs as of year-end 2021).

We have a central governance process in place for new flavored heated tobacco products, e-vapor products, and combustible products to assess the risk of unintended use prior to commercialization. The assessment framework takes into account, among other things, the flavor dimension of the product, how the product will be labeled and marketed, and the regulatory and commercial environment. Read more about our approach [here](#).





The role of nicotine in smoke-free product acceptability

Nicotine plays an important role in helping adults who would otherwise continue to smoke to transition from cigarettes to better alternatives. By having a nicotine profile that resembles that of a cigarette, smoke-free products aim to offer a satisfying experience to adult smokers who are trying to switch to them. Read more about the role of nicotine [here](#).

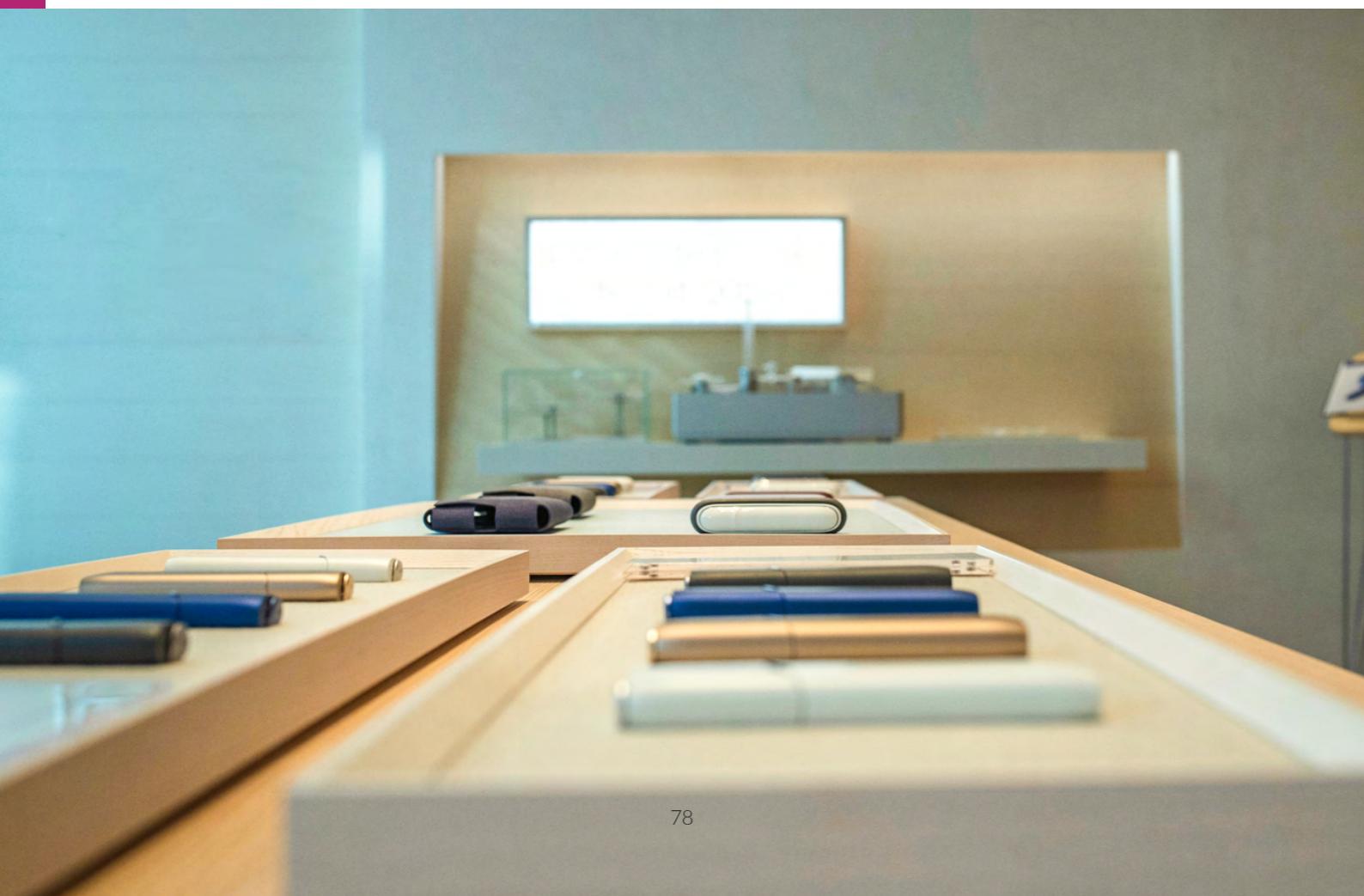
Supporting adult smokers in their conversion to smoke-free products

Purchasing and trying a smoke-free product is only one step along the conversion journey of adult smokers who seek to switch to a less harmful alternative to cigarettes. It is essential that we have the right infrastructure in place to support adult smokers along every step of this journey.

We are continuously strengthening the ecosystem through which we support consumers in making this better choice.

As of year-end 2021, we had 36 consumer call centers, where adult users can contact us if they have questions about the product or its use, as well as thousands of own or indirect retail touchpoints worldwide. These retail outlets offer personalized support to adult consumers, ranging from explaining how the product should be used and how to clean it to offering more details about heated tobacco technology and its benefits. They also give adult smokers and nicotine users the option of trying the product before purchase. In addition, there are premium resellers—select stores that adult smokers regularly visit to purchase tobacco products—in which we provide, to the extent permitted by law, information about our smoke-free products and an opportunity to have a session with trained staff to learn about the products, their benefits, and how to use them.

Digital capabilities also help us serve adult consumers more efficiently, and we have intensified our focus in this direction over the past several years. For instance, in countries where this is permitted, adult smokers who express an interest in our smoke-free products are offered an online session with a remote IQOS coach.



EXPANDING PRODUCT AVAILABILITY

Whether we can make our smoke-free products available to adult smokers depends on several factors, including some beyond our control, that dictate our ability to scale and legally commercialize our products in certain territories.

Advocating for risk-proportionate regulation

Combustible tobacco and smoke-free product marketing and advertising are subject to extensive restrictions worldwide, including outright bans in some countries. This regulatory environment makes it difficult—or almost impossible in some countries—to make adults who smoke aware of available alternatives to cigarettes and inform them of how and why they should use such alternatives instead.

Encouragingly, we have witnessed growing government support in recent years for science-backed smoke-free products. An increasing number of governments now complement traditional tobacco control measures (i.e., those intended to discourage initiation and encourage cessation) with a harm reduction approach (i.e., providing adults who would otherwise continue to smoke with information about—and access to—scientifically substantiated smoke-free alternatives). Visit [PMI.com](#) for an overview of significant regulatory developments.

We regard stakeholder engagement as fundamental to the creation of shared and sustainable value (read more [here](#)). For PMI, responsible advocacy is about engaging with individuals and organizations in a way that respects the law, adheres to professional standards and ethical principles, and is consistent with the company's vision and internal policies. This means acting in a fair, honest, and respectful manner when advocating our positions concerning issues on which we have a legitimate interest or concern.

Open and transparent dialogue with national and local governments and regulators allows us to understand their priorities and concerns and share our views, objectives, and scientific findings. We engage with governments, regulators, and legislators to support the development of legislation and regulations that will enable adult smokers to access smoke-free alternatives while minimizing access and use by unintended users, including minors and nonsmokers.

Making our smoke-free products available on the marketplace

In addition to external factors, internal constraints affect the rate at which we can roll out smoke-free products globally.

Building internal capacity

PMI is present in around 180 markets, but the size and capacity of our local organizations vary. Not every market has the resources and capability to launch smoke-free products immediately. We evaluate the commercial viability of launching smoke-free products in each market to prioritize internal resources adequately.

The ability to manufacture our smoke-free products at scale requires significant investment in our production capacity. In particular, the manufacturing of smoke-free product consumables requires that we build new factories or convert existing cigarette factories and increase our capital expenditure—for example, to purchase new machinery. In 2021, eight of our 38 factories were dedicated, either partially or fully, to the manufacture of our smoke-free products.

Since the start of the COVID-19 pandemic, many companies across a wide range of industries have been impacted by a global shortage of semiconductors, which are used in a broad variety of consumer products, including our smoke-free electronic devices. Persistent shortages of—and growing demand for—this critical component have affected the availability and assortment of our smoke-free devices in certain markets, impacting our ability to operate at full commercial capacity.

During the year, we monitored this situation closely and took steps to limit the impact on our customers and trade partners and on consumer availability.

While the growth in IQOS users slowed in the third quarter of 2021, we undertook extensive mitigating actions and saw increased sequential IQOS user growth in the fourth quarter despite continued device supply constraints. We have adjusted our device assortments, restrained commercial programs, and are managing our inventories in an effort to ensure, first, that current consumers are able to continue on their journey away from cigarettes and do not revert to smoking, and second, that adult smokers can access our most advanced and innovative alternatives to continued smoking.



Expanding our footprint in 2021

As of year-end 2021, our smoke-free products were available for sale in 71 markets, either in key cities or nationwide (2020: 64).¹ We aspire to expand our footprint to make them available in at least 100 markets by 2025.

During the year, we launched our heat-not-burn IQOS product in six additional markets (Aruba, Egypt, Kyrgyzstan, Morocco, Tunisia, and Uzbekistan), bringing to 68 the total number of markets in which the product was commercialized as of the end of 2021. We also rolled out the commercialization of our e-vapor product in five new markets (Canada, Croatia, Finland, Italy, and Ukraine). By the end of the year, IQOS VEEV was available in a total of seven markets.

The adverse determination by the U.S. International Trade Commission (ITC), which prohibits the import of IQOS devices and HTU consumables into the U.S., was clearly an unwelcome development, albeit one that is currently immaterial to PMI. While this decision will cause near-term disruption, we have contingency plans underway and hope to be able to resume U.S. supply as soon as possible. We continue to see a large opportunity for IQOS in the U.S. over time.

Based on our current geographic footprint, we estimate that around 180 million adult smokers (i.e., 71 percent of the total number of adult smokers in the markets where we have launched) have physical access to purchase our smoke-free devices and consumables (2020: 150 million adult smokers, or 64 percent of the total number of adult smokers in the markets where we had launched at year-end 2020).

Enhancing in-market availability

Expanding the geographic availability of our smoke-free products to ensure they are conveniently accessible to adult consumers requires that we leverage a variety of retail channels, including:

- Direct retail channels such as brand retail locations (e.g., IQOS stores) and e-commerce websites (where permitted)
- Indirect retail channels such as tobacconists, convenience stores, gas stations, consumer electronics stores or vape stores, and online channels

As of the end of 2021, there were more than 1,700 exclusive brand direct retail touchpoints (including 274 permanent PMI-owned IQOS boutiques and stores worldwide).² We also ran e-commerce sites for IQOS in 55 markets, allowing consumers to purchase the product online and have it delivered to their homes.

Regarding the indirect retail environment, we classify the general trade and key accounts universe into three groups according to the product portfolio handled and the services provided to consumers:

- Consumables sellers provide consumers with a convenient option for everyday purchases of smoke-free consumables (e.g., the heated tobacco units for IQOS) and increase awareness of smoke-free products in general and our product portfolio in particular
- Device sellers allow consumers to purchase smoke-free devices conveniently and to access services such as device replacement
- IQOS partners offer consumers a wide range of services, including product trial³

As of the end of 2021, there were around 3,600 IQOS partners and more than 800,000 points of sale at which IQOS HTUs were sold.



ADDRESSING PRODUCT AFFORDABILITY

We will only achieve a smoke-free future if all those adult smokers who do not quit tobacco and nicotine altogether can afford to switch to better alternatives.

We have set a 2025 ambition for at least 50 percent of the markets where we commercialize our smoke-free products to be low- and middle-income markets, bolstered by new innovative products for consumers with lower purchasing power. As of the end of 2021, our smoke-free products were available in 30 low- and middle-income markets (2020: 26).

While it is vital to increase the availability of our science-based smoke-free alternatives across countries, we must also ensure our products are affordable to all adult smokers within each market so that they consider switching instead of continuing to smoke. This means accounting for the purchasing power of adult smokers and deploying inclusive solutions to meet the needs of different segments of the population and geographies. Accordingly, we must account for the economics of innovative smoke-free products, which can be significantly different from those of a centuries-old product such as cigarettes.



Devices

Unlike cigarettes, some of our smoke-free consumables require the use of devices. Adult smokers who want to switch to our heat-not-burn or e-vapor products, for instance, must first buy a specific electronic device. These high-quality devices rely on innovative technologies and require significant production costs to ensure they function consistently within the precise specifications of our scientific evidence package.

To address the potential cost barrier for adult smokers who would like to switch, we deploy various solutions, such as:

- Initial lending of the device or payment over time
- Enhanced battery and firmware performance and increased longevity of devices, which lowers the average annual cost for the user while also improving the ecological footprint of our devices
- A broadened portfolio offering different price points. For instance, in 2021, we continued to commercialize the licensed *lil SOLID* device, for use with *Fiit* consumables, at a price below the lowest-priced IQOS device in select markets. Also, we may lower the price of existing device versions following the launch of new versions. The retail price of these devices ranges from around USD 16 to USD 153, depending on model and country, with the global average price for the lowest-priced heat-not-burn device (including IQOS and *lil*) being USD 24.
- Remarketing of used products collected from consumers and refreshed or repaired according to stringent standards (read more [here](#)).

¹ 2021 figure excludes Belarus and the U.S.

² Exclusive brand direct retail touchpoints are stand-alone touchpoints dedicated to PMI's portfolio of smoke-free products, representing the most experiential physical retail formats, and delivering the highest level of experience with the broadest range of products and services to legal age consumers.

³ IQOS partners (indirect retail brand experience touchpoints) consist of a dedicated IQOS space within another retailer's premises where brand experiences and services are delivered to adult consumers by the retailer staff. In this format both devices and consumables are generally commercialized.

Consumables

Our portfolio includes nicotine-containing consumables to be used with our electronic devices. These include the HTUs used with our heat-not-burn products and the liquid nicotine used with our e-vapor products. We also produce nicotine-containing consumables (e.g., nicotine pouches) that do not require the use of an electronic device. The recommended price of these consumables (whether as a complement to a device or as stand-alone product) plays an important role in determining affordability and consequently expanding access.

The recommended price of our consumables depends on R&D, production, compliance and commercialization costs, as well as the excise taxation regime in the countries where they are sold.

Currently, the production costs of the heated tobacco units used with IQOS devices are, on average, somewhat higher than those of cigarettes. HTUs undergo a proprietary manufacturing process that is vastly different from the manufacture of cigarettes, and they require an increased level of quality assurance in factories. The manufacture of HTUs also incurs other costs that do not apply to cigarettes, such as the costs of scientifically substantiating the reduced-risk profile of these products, and ongoing post-market studies. Importantly, they entail much higher commercialization costs compared with cigarettes due to the need to properly introduce consumers to these new products and explain their functionalities.

These costs include, for example, our customer care call centers and follow-up to ensure users do not fall back into smoking during their conversion journeys.

Beyond production and commercialization costs, a key factor driving tobacco and nicotine product retail prices is the excise tax. Excise taxes on cigarettes are generally higher than those on smoke-free products. Within the smoke-free category, electronic cigarettes tend to be taxed at a lower rate than heated tobacco products.

Differential taxation is an appropriate fiscal policy given the fundamentally different risk profiles of combustible tobacco products versus smoke-free alternatives. Applied appropriately, this approach can incentivize adult smokers to switch away from cigarettes and other combustible tobacco products and encourage manufacturers to channel their investments and R&D away from cigarettes and toward smoke-free alternatives.

The combined effect of manufacturer costs and tax differences is such that the price to the consumer of IQOS HTUs is typically below that of premium cigarettes—or can even be at the low end of cigarette pricing. As of the end of 2021, we estimate that our HTUs are on average priced the same as or lower than an adult smoker's current cigarette brand for 58 percent of smokers in the geographies where we commercialize IQOS.

To address potential affordability barriers, we are also expanding consumers' choice of HTUs by offering brands at multiple price points in many markets. As of year-end 2021, we offered a price point below our main HTU brand in 21 markets.



Marketing and selling our products responsibly

Consumer-centric product design, development, marketing, sales, communications, and engagement drive our commercial success and propel our smoke-free mission. In this context, responsible sales and marketing practices are critical priorities for PMI. We aim to design our marketing communications and materials to appeal to adult smokers and adult users of nicotine products, and we follow strict principles to minimize the risk of unintended consequences, such as youth access to our products. This is an ongoing effort and we strive to improve continuously.

Rolling out our updated Marketing Codes

Consistent with our category-based organization, our marketing and sales principles and practices are codified in two separate Marketing Codes: one for combusted tobacco products (an enhanced version of the previous Marketing Code that had been in place for years) and one for smoke-free (or "noncombusted") alternatives.

We rolled out these Codes internally early in 2021, building on our previous Marketing Code centered on combusted tobacco products and the Good Conversion Practices we had established to govern the marketing and sale of our smoke-free products. During the year, we worked to embed the norms of these Codes within our organization and trained employees and relevant third parties. We closely guided our markets during the roll-out period and encouraged them to provide feedback and seek clarification as needed. We have now published our two Codes on our [website](#) and welcome stakeholder feedback on our responsible commercialization practices.

Our Marketing Codes are accompanied by a set of internal guidelines that provide more detailed information on implementation. These guidelines cover, among other things, how to develop appropriate consumer messaging, set up effective youth access prevention programs, communicate digitally with consumers, and conduct market research for smoke-free products.

Governance of the Marketing Codes

The Codes are intended to guide the design, marketing, and sale of our products. They include the core principles, practices, and governance processes we follow in developing, designing, marketing, and selling our products and in engaging with adult consumers of our products. Sometimes our Codes impose more stringent provisions than required under local laws; in such cases, we follow our Codes. If the opposite occurs and local laws set a stricter standard than our Codes, we, of course, follow the law.

The Codes are subject to a robust governance process established in 2021 under the responsibility of the newly formed Marketing Review Council, composed of members of our Company Management. The council's role includes guiding implementation of the Codes across the organization.

Deployment Review Group

Each of our affiliates has a local cross-functional team (a Deployment Review Group or DRG) in place that provides a robust process for reviewing and approving new products, packaging, consumer-facing programs, campaigns, and initiatives before they are deployed.

We expect every market to fully implement the Codes and are implementing a self-assessment process to confirm they do. Findings and actions resulting from these self-assessments will be shared with regional and functional senior management before being reported to our President, Smoke-Free Products Category & Chief Consumer Officer and our President, Combustibles Category & Global Combustibles Marketing.

Employee and third-party training

Our responsible commercialization efforts rely on the adherence and dedication of our employees and the third parties with whom we work. All PMI employees involved in PMI's commercialization activities must be trained on the Codes and follow them. Third parties involved in PMI's commercialization activities must also be trained on the relevant parts of the Codes and follow them.

We deployed new training in 2021 in parallel with the release of our Marketing Codes and their accompanying implementation guidelines to ensure employees and third parties understand our principles and practices and embed them in their work.

In addition to global compliance e-learning, our affiliates rolled out instructor-led classroom and online training sessions for employees and third parties involved in the commercialization of PMI products to ensure wide reach and proper awareness and comprehension of the Codes' expectations. In 2021, more than 70,000 people participated in at least one Marketing Codes-related training session (including on youth access prevention requirements). Of this total, around 23,000 were PMI employees and around 47,000 were third-party workers, including agencies, promotional staff, call center agents, and shop assistants, among others.

To ensure continuous reinforcement and proper implementation of the Codes' requirements, we plan to train all relevant employees and third parties on the Marketing Codes at least every two years. Further, we expect to conduct annual training on youth access prevention requirements among all affiliates' salespersons engaged in brand retail or in our contact centers.



>70,000

PMI employees and third-party workers participated in at least one Marketing Codes-related training session in 2021

Monitoring and remediation

Three functions (Ethics & Compliance, Risk & Controls, and Corporate Audit) support and monitor compliance with the Marketing Codes and their implementation guidelines through training, communications, controls, investigations, and audits.

Our Ethics & Compliance function investigates potential incidents of noncompliance with laws and PMI's Marketing Codes. In 2021, there were 13 violations of our Marketing Codes by PMI employees (2020: 29). As a consequence of these violations, we took disciplinary actions, of which 15 percent consisted of employment termination, 8 percent in suspension, 15 percent in written warning, and 62 percent in verbal warning or counselling.

Further, the risk of marketing and selling to youth is covered in our annual enterprise risk assessment and in our risk-based audit program.

Reviews by our Corporate Audit department in 2021 found that only a few affiliates experienced issues related to responsible marketing compliance, and these issues were mainly procedural.

During the year, Corporate Audit conducted 19 audits covering 24 markets. Processes and controls were reviewed in each of these markets, and members of the Corporate Audit team visited a limited number of points of sale (COVID-19 restrictions did not permit field visits to some) to assess the steps taken to implement our Marketing Codes. No significant issues related to youth access were identified in the locations visited, except for one case where the agreed implementation steps were not executed as planned, mainly due to COVID-19-related restrictions. The affiliate implemented all four identified management action plans by October 2021 in line with the requirements of the Marketing Codes.

In markets selling smoke-free products, we also conduct a mystery shopping program. As part of this program, we determine whether the requirements on youth access prevention set out in our Marketing Codes are being implemented across our e-commerce websites, brand retail sites, and contact centers. Read more on the next page.

Insider insights: Mystery shopping program

In addition to other controls we have in place, our bespoke mystery shopping program (MSP) helps us monitor and measure adherence to our requirements on youth access prevention as set out in our Marketing Codes across different touchpoints. MSP leverages trained "mystery shoppers" commissioned by an independent third party. The shoppers are at least 19 years old, and all of them are smokers. They are tasked with acting interested in PMI smoke-free products and with going through various service interactions, such as making a purchase at an IQOS store, placing an online product order, or interacting with an IQOS coach. While doing so, they assess and record not only their consumer experience and the quality of service delivered, but also whether appropriate control measures were exercised to determine and verify (a) their age and (b) whether they are smokers or users of nicotine products. We receive detailed and regular reports on the mystery shoppers' feedback, allowing us to identify cases in which adherence to our requirements is not being met.

We piloted this program in seven markets in 2017, focusing on PMI's IQOS boutiques. In the ensuing years, we significantly increased the scale of our efforts.

By the end of 2021, the MSP had been implemented across our IQOS stores, contact centers, and e-commerce sites (depending on the retail and support channels available) in 60 markets where our smoke-free products are commercialized. Where COVID-19 conditions allowed it, mystery shoppers performed around 2,500 visits in 2021 to over 640 IQOS stores, visiting on different days and at different times of the day. In over 96 percent of those cases, they reported that their age had been properly checked prior to starting the conversation about the product—unless their appearance made clear that the mystery shopper was above the minimum legal age (or at least 18 years old in markets without a minimum legal age). Although the pandemic constrained our abilities to monitor on the ground, the program was still implemented online.

The MSP is an additional and valued due diligence tool that helps ensure we reach our desired audience—adult smokers and users of nicotine products—while minimizing the risk of unintended consequences such as access to and use of our smoke-free products by youth. It provides a powerful way to ensure our age verification requirements are implemented properly on the ground across selected consumer-facing channels. And it is not only about measurement: The wealth of data collected from the program is turned into targeted actions to continuously guard against youth accessing our products.



Consumer communications and labeling

Along with applicable laws, we apply strict rules governing how we present our products to adult consumers.

Labeling

We warn consumers about the health effects of our products. All advertising and consumer packaging for combusted tobacco products and smoke-free alternatives must contain clear and visible health warnings, even in markets where not required by law. Our smoke-free consumables packaging indicates clearly that the product is for adults, is not risk-free, and contains nicotine, which is addictive.

No product placement

With regard to both our combusted and smoke-free products, we do not pay for product or brand placement in entertainment programs, films, radio, video games, or any other program intended for or disseminated to the general public. Moreover, our advertising, marketing, and sales materials must be placed where they are likely to reach adult smokers and not in places or channels frequented primarily by minors (i.e., they can only be placed in media channels whose audience is reasonably estimated to be at least 75 percent above legal age).



Social media

We do not use social media for marketing, advertising, or any other promotional communications related to our combustible products, whether branded or not. The same rule applies to our contracted parties, including event organizers, third-party agencies, and brand ambassadors.

Unlike with combustible tobacco products, we maintain consumer-facing branded social media accounts for our smoke-free products in certain markets. We do so only in countries where reliable audience data show that the audience of the relevant social media platform is at least 75 percent adult. In addition, we use all available native age gates.

In 2019, it was brought to our attention that some social media posts, while in line with applicable laws, did not comply with our internal “digital influencer” guidelines. Consequently, our Senior Management Team decided to suspend the use of social media influencers for the purposes of online marketing. Since then, our company has worked hard on strengthening and building more robust systems and processes, including by exploring the use of previously unavailable age-control technology, to ensure our online engagement is reaching the right kind of audience. Further, and to limit the reach of our marketing communications, we do not encourage adult consumers to share commercial content related to our smoke-free products on their personal social media accounts. In 2022, we will continue to evaluate the best way to continue responsibly increasing awareness, while preventing unintended consequences.

Preventing youth access and use of our products

As a leading manufacturer of tobacco and nicotine products, we have a critical role to play in guarding against youth access to our products. Accordingly, we have developed an enhanced suite of measures designed to ensure a holistic approach to guard against youth access to our products.

We deploy measures to ensure consumers are age-verified across all access channels when being provided with access to our products, including both PMI owned and operated boutiques and e-commerce platforms, and third-party retailers and online marketplaces. While the level of control we have over these channels varies, it is critically important that we make every effort to guard against youth access to our products regardless of venue.

In addition, we strongly support regulation that ensures that only adults can buy tobacco and nicotine-containing products, as well as the strict enforcement of minimum age laws and penalties for those who sell or provide these products to minors.

The global youth access prevention requirements in our Marketing Codes apply to all our commercial activities, even when not required by local laws. These stringent standards reduce the likelihood that our products and related consumer communications will be of particular appeal to youth. These requirements shape the content of our creative materials, ensuring, for instance, that they do not contain images of models who are, or appear to be, under age 25 or images of youth-oriented celebrities.

We have also implemented a central governance process under which new flavored heated tobacco products, e-vapor products, and combusted products are evaluated. Under this framework, flavored product propositions are assessed premarket to minimize the risk that their introduction in the marketplace generates unintended consequences. While flavors are essential to encourage adult smokers to switch, and their use should be preserved, certain flavors could be particularly appealing to unintended audiences and should not be used. In all circumstances, every tobacco and nicotine product should be regulated, including the way they are marketed, to ensure they do not particularly appeal to unintended audiences, including youth.

Engaging with our trade partners (B2B)

We do not own or control the vast majority of retail outlets in which people buy our products: Around 99 percent of our sales occur outside our owned channels. To ensure retailers operate according to our standards, we set robust requirements for our trade partners. We work with them to ensure they understand why they should not sell tobacco or nicotine products to youth. To ensure compliance, we monitor the implementation of youth access prevention (YAP) programs in our indirect retail channels and are committed to maintaining high coverage of our shipment volumes (minimum 90 percent).

In 2021, we evolved our minimum requirements for an effective YAP program in our indirect retail channels, which have been integrated into our Marketing Codes.

Our YAP tools include templates for contract clauses requiring that retailers ensure strict compliance with minimum age laws or, in the absence of such laws, that they refuse sales of nicotine-containing products to anyone below 18 years old. The tools also include educational modules and knowledge checks for both combustible and smoke-free products, made available via the digital communication platform we use with our retail partners across more than 85 markets. Other tools we provide include point-of-sale signage, communication templates, and talking points to guide in-person conversations with trade partners.

By the end of the year, markets representing 91 percent of our total shipment volume were implementing these YAP programs in our indirect retail channels.

Age verification in our owned channels (B2C)

In owned channels (such as our IQOS stores and e-commerce sites), our Marketing Codes, youth access prevention (YAP) guidelines, and training materials and tools require that consumers’ age is verified before they can access our products—ensuring they are of legal age (or at least 18 years old in markets without a minimum legal age).

What is a youth access prevention program?

A youth access prevention (YAP) program is a combination of guidelines and tools to help our affiliates work more effectively with their trade partners to guard against sales of our combustible and smoke-free products to underage purchasers.



We monitor compliance with our Marketing Codes and guidelines through mystery shopper programs. An independent third party uses mystery shoppers to assess the consumer experience delivery, the quality of service offered, and compliance to our requirements (read more [here](#)).

IQOS stores

At our physical brand retail outlets, any consumer who wishes to purchase our products is age-verified by a trained salesperson. The verification must be conducted in person and, if there is any doubt that the person is an adult, by checking an official identity document.

E-commerce

We implement age verification prior to selling our products online. This requires, for example, that we can leverage databases from reliable and credible sources (such as government organizations, telephone network operators, or banks) or scan an uploaded copy of a person's identity document. Where the necessary technology is not yet available, or where a person cannot be age verified using either of these methods, alternative age-verification processes are applied—including face-to-face age verification on delivery by couriers or at collection pick-up points.

Enhanced electronic age-verification technology

Beyond our existing youth access prevention programs, we continue to develop technology to minimize unintended use and prevent youth from initiating or using our smoke-free devices. An example of this is our proprietary age-verification technology embedded in our VEEV products. To test its efficacy, we began a pilot in 2020, testing this technology in New Zealand, which continued during the first half of 2021.

This specific form of age-verification technology required the consumer to prove their age with reliable online data, in order to be able to unlock, and thereby activate the device prior to first use. If the device was not linked to an age-verified consumer profile, the device would then remain blocked and unusable. On the contrary, once unlocked, the device would be activated and the adult consumer would have the ability to lock and unlock it—at their convenience—to prevent unintended use.

Key learnings from New Zealand highlighted that it is critical to ensure a simple and easy to use mechanism for consumers to be age verified, as well as to activate their devices. Moreover, we learned that on the consumer conversion journey, an overly complex age-verification process would represent a barrier in their decision to abandon cigarette smoking and switch to a smoke-free alternative.

We deployed a second pilot with VEEV in two cities on the island of Corsica, in France in 2021. These pilots confirmed our learnings from New Zealand and the need to further optimize these novel technologies, processes, consumer journey, and user experience.

During 2022, we plan to launch additional pilots which will include testing of different user experiences, a suite of online age-verification mechanisms, and various methods to perform device activation. Fundamental to the viability of these efforts will be to ensure that the underlying infrastructure is scalable.

Secure and user-friendly age-verification technology is a novel advance in the smoke-free product category and requires strong partnerships with information technology service providers, as well as with the owners of various software applications. Our teams continue to engage with the leading hardware and software players in these industries, to ensure that the most robust and best-in-class technology is available for PMI's smoke-free products.

Based on the New Zealand and Corsica pilot learnings, its benefits and challenges, during 2022 we will continue to develop and test a range of age-verification technologies, with a focus on online age-verification. We will utilize these current and future learnings to guide our ambitions and assess our targets, remaining steadfast in our commitment to prevent access to these products by unintended audiences.

Looking ahead



More than a decade ago, PMI set itself the goal to re-focus its business and develop products that can reduce the risk of smoking-related diseases compared with cigarette smoking while in parallel phasing out cigarettes. Science and technology are at the core and key enablers for this ambition. So far, we could demonstrate that our heated tobacco and e-cigarette products significantly reduce the formation and exposure to harmful chemicals as well as the risk of smoking-related diseases in animal models. But this is only the starting point. Moving forward, and building on the past decade of experience, capability build up and scientific work, we have started to execute a significant program of biomarker, clinical outcome and real-world evidence studies to demonstrate the individual clinical and public health benefit of our smoke-free products.

Jorge Insuasty, President, Vectura Fertin Pharma and Chief Life Sciences Officer



We have a robust infrastructure for monitoring compliance with our Marketing Codes, and we are committed to implementing our youth access prevention efforts globally and ensuring adequate monitoring of their enforcement. We will also continue to deploy YAP tools in our indirect retail channels. Currently, these programs cover more than 90 percent of our shipment volume, and we will continue to engage with various stakeholders on this topic, including retailers and governments, to find more effective solutions.

Werner Barth, President, Combustibles Category & Global Combustibles Marketing



We achieved remarkable progress in 2021 and have ambitious plans for 2022, including expanding and improving our product portfolio with a broader range of taste, price, and technology choices. We will continue to make our heat-not-burn and e-vapor products available in additional markets. Building on its success in Japan and Switzerland in 2021, we look forward to launching the latest generation of our heat-not-burn product, IQOS ILUMA, across additional markets over the coming years. Moreover, with the acquisition of AG Snus and its Shiro nicotine pouch and Kapten snus brands in May 2021 we have grown PMI's capabilities and expect additional product and market launches in 2022.

A clear consideration to improving access of adult smokers to smoke-free products is affordability, particularly in low- and middle-income markets. We plan to introduce a new heat-not-burn device to expand the access for consumers in the medium and below segments in emerging markets towards the end of 2022. This will be a simple, convenient, and affordable proposition that can cater to local taste preferences without compromising on harm reduction. We believe this product can also help address the lower price segment in developed countries.

We will continue to design and deploy a suite of effective tools to ensure that our smoke-free products reach only the intended audience: adults who smoke or use other nicotine products.

Stefano Volpetti, President, Smoke-Free Products Category & Chief Consumer Officer





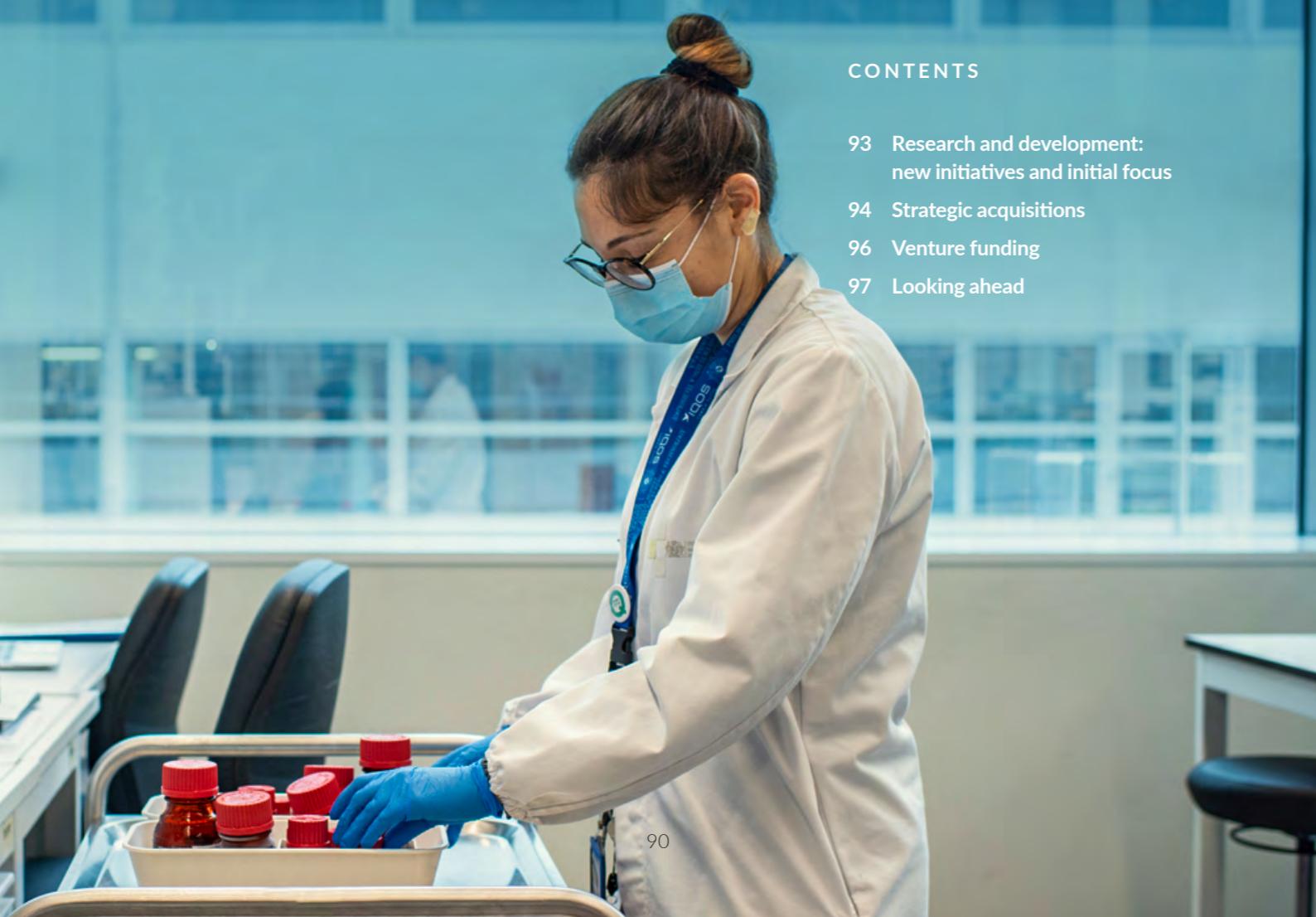
PRODUCT IMPACT

Seek net positive impact in wellness and healthcare

We are striving to become a company that has a net positive impact on society. Therefore, we are expanding our offerings to include products that will address critical unmet consumer and patient needs within the health and wellness space, moving from a value proposition centered on doing less harm toward one where we contribute to society in positive ways.

CONTENTS

- 93 Research and development: new initiatives and initial focus
- 94 Strategic acquisitions
- 96 Venture funding
- 97 Looking ahead



Researching and developing smoke-free alternatives that are scientifically substantiated to be less harmful than cigarettes was the first step in our journey to address our biggest negative externality: the impact of cigarette smoking on health. In the process, we have expanded our social, human, intellectual, and manufactured capital in ways that allow us to go a step further and develop products that seek to be better than “less harmful.” The aim now is to use this capital to develop significant growth opportunities in wellness and healthcare.

We are now able to expand our purpose (read our [Statement of Purpose](#)). The critical next step in PMI’s transformation is leveraging our expertise and capabilities to expand into products beyond tobacco and nicotine as part of a natural evolution into a broader wellness and healthcare business. Our strategy is built on two key growth areas: (1) wellness products, where we are developing and looking to commercialize scientifically substantiated consumer health products and solutions with the aim to improve people’s lives; and (2) healthcare products, where we have already committed resources to a development pipeline of over-the-counter (OTC) and prescription products.

PMI’s innovation in wellness and healthcare is part of a larger transformation that puts science, technology, and sustainability at the heart of our company’s future, delivering products and solutions that aim to improve people’s lives and deliver a net positive impact on society.

Building on our company’s investment and expertise in aerosol chemistry and physics, device technology, clinical research, and best-in-class preclinical safety and inhalation models, we are developing innovative and differentiated products for unmet patient and consumer needs.

Work is collectively overseen and delivered by Life Sciences, together with other teams such as Strategy, Finance, and Sustainability. Following PMI’s 2021 acquisition of leading innovative companies Vectura, Fertin, and OtiTopic, we are joining forces with these organizations’ experts in consumer health and pharmaceutical to accelerate progress and propel our capabilities in wellness and healthcare. Read in this [case study](#) how we see our company’s value creation model evolving as the newly acquired companies strengthen PMI’s human and intellectual capital.

Although we are at the beginning of this journey, the aspiration to generate at least USD 1 billion in annual net revenues from wellness and healthcare products by 2025 showcases both our strong commitment to furthering the transformation of our company and our deep belief in the opportunity these adjacent avenues of growth can bring in the long term, leveraging our ability to monetize the skills and assets we have accrued and developed in the process of our transformation.

To achieve this objective, we will rely on and expand upon our existing core capabilities, seek partnerships with entrepreneurs and companies that have the proper experience and credibility in relevant fields, and keep a strong focus on specific benefit and disease areas.

Our aspiration

≥USD 1 bn[®]

At least USD 1 billion in net revenues generated from wellness and healthcare products by 2025

To demonstrate the seriousness of our endeavor and the strategic relevance of this aim, we introduced a new topic, “Innovation in wellness and healthcare,” to our 2021 sustainability materiality assessment process, following the introduction of this new aspiration, which complements our Business Transformation Metrics and 2025 Roadmap.

For example, in the inhaled therapeutics space, there are significant unmet patient needs for fast and effective treatments in cardiovascular (e.g., myocardial infarction), neurology (e.g., migraine and chronic pain), and allergies that can be served via innovative solutions. One of those solutions could be inhalable acetylsalicylic acid (commonly known as aspirin) for the prevention and treatment of myocardial infarction. We also see promising opportunities for chronic pain management treatment with medical cannabis.

For consumer and OTC wellness products, areas such as sleep, energy, focus, and calm have shown to be of high interest and are areas of high unmet need. For example, we are evaluating promising applications for cannabidiol (CBD) in some of these areas, notably through oral delivery, as safe CBD dosage levels are being defined by regulators, informed by clinical studies.

Another area of interest is smoking cessation products, known as nicotine replacement therapies. We see an opportunity to provide more effective solutions via consumer, OTC, and prescription pathways over time.

2021 was a pivotal year during which we kicked off our wellness and healthcare strategy across three fronts:

1. Continuing to invest in research and development
2. Expanding our business via strategic acquisitions
3. Financing innovation with our venture capital fund

Research and development: New initiatives and initial focus

During 2021, 99 percent of our adjusted R&D expenditure was allocated to our smoke-free business and to innovation and pipeline development in the wellness and healthcare business. More concretely, 92 percent funded PMI's internal scientific research and development related to tobacco harm reduction, while 7 percent was invested in innovation and pipeline development and expanding R&D capabilities to serve the wellness and healthcare business.

Over the past decade, we have developed the ability to combine scientific excellence with commercial rigor to continue elevating our business transformation. Our expertise in inhalation science and scientific assessment in that space can be effectively repurposed to help address pressing needs in the wellness and healthcare sector.

Building upon these scientific capabilities, our R&D investments seek to support our company's scientific and business strategy for the new wellness and healthcare business, focusing on inhaled drug delivery, botanicals, and consumer health.

We dedicated our [May 2021 Scientific Update](#) to examining the capabilities our research on smoke-free products has given us and discussing how we can apply those capabilities to develop new research initiatives and products.



Over the years, many researchers in the field of harm reduction have asked us why we are not using our knowledge in aerosolization and inhalable devices beyond the tobacco harm reduction space. This was the right question to ask, and building upon the research expertise and knowledge we've gained from developing and assessing smoke-free products, we are in a really good position to work on, for example, inhaled therapeutics. This method of delivering medicines is not as well developed or as widely used as taking oral delivery forms such as a pill or a liquid. But delivery through the lung can become important for society because it has advantages over the traditional medication delivery methods and can address some of today's unmet medical needs. Medicines delivered via the respiratory tract allow a much more rapid onset of the drug effect and potentially reduce side effects due to the lower dose that might be needed—for example, compared with taking a pill. It's similar for botanicals: We know how to work with plant substrates, and we know how to aerosolize and assess botanical products. In short, we are leveraging the areas where we have strong research and technology expertise to strengthen our business while making a difference for society."

Patrick Picavet Vice President New Business & Chief of Staff



Strategic acquisitions

To complement our in-house science and innovation capabilities, we made solid progress during 2021 on our “Innovation in wellness and healthcare” strategy with the acquisitions of three innovative and forward-looking companies that we are excited to join forces with and that will form the backbone of our purpose and new wellness and healthcare business.

In August, we announced the acquisition of inhaled drug specialist OtiTopic, a U.S. respiratory drug development company with a late-stage inhalable acetylsalicylic acid (ASA) candidate for the prevention and treatment of acute myocardial infarction. ASPRIHALE® is a patented, dry powder inhalation ASA, delivered through a unique self-administered aerosol. It is designed for patients at risk of heart attacks. In clinical trials, ASPRIHALE® catalyzed peak plasma concentration and pharmacodynamic (PD) effect in two minutes due to its inhalation approach, compared with the 28 minutes coated chewable aspirin took.

This speed is unprecedented and can have significant implications for reducing the risk of morbidity and mortality. Cardiologists agree that the rapid drug exposure and PD effects would be beneficial, especially during the time before the patient arrives at the hospital. In the U.S. alone, someone has a heart attack every 40 seconds. With its inhalable version of ASA, OtiTopic has developed an asset that promises to have a much faster onset of effect compared with oral ASA. PMI looks forward to completing the planned ASPRIHALE® registration program and bringing this important treatment to market to address a significant unmet medical need in a clinical condition where every second counts.

In September, we announced the closing of the acquisition of Fertin Pharma, a leading developer and manufacturer of innovative pharmaceutical and well-being products based on oral and intraoral delivery systems. With Fertin Pharma's substantial know-how and oral delivery platforms, we plan to develop scientifically substantiated consumer health products, including over-the-counter solutions and supplements for better living in areas such as sleep, energy, calm, and focus. By serving as a critical pillar of the new wellness and healthcare business, as part of PMI's transformation, Fertin will be uniquely positioned to continue to innovate and grow—delivering on our vision of enabling people to live healthier lives. Our shared commitment to science and consumer-centric innovation forms a strong basis for a very successful future together. Fertin will also continue to grow and serve external customers as a leading contract development and manufacturing company (CDMO) in the oral formulation space.

Furthermore, we acquired Vectura, a leading specialist inhalation CDMO that provides innovative inhaled drug development solutions to help clients bring inhalable medicines to patients. The market for inhaled therapeutics is growing rapidly outside the traditional spaces where inhalable medicines have been used over the years, focusing on specialty disease areas with high unmet medical need and hence with significant potential to expand into new application areas beyond the current market offering.

Within the context of our new wellness and healthcare business, Vectura is well-positioned to address this market growth while becoming the backbone of the inhaled therapeutics arm. PMI has made a clear commitment to advance Vectura's existing strategy, expand it geographically, and extend the company into the development of proprietary inhaled therapeutic products, alongside its existing CDMO business. This will benefit Vectura's differentiated technologies and development expertise for the delivery of complex inhaled therapeutics and will enable us to bring our initial pipeline of inhaled therapeutic products to market.

Important to note is that we will be focusing on innovating in the method of delivery of existing approved and permitted molecules rather than on traditional new compound research, while always having the demands of physicians, payers, patients, and consumers in mind.



Repurposing the tobacco plant beyond nicotine

In 2021, the Quebec City-based biopharmaceutical company Medicago—in which PMI has a minority shareholding—applied for Canadian approval for its COVID-19 vaccine candidate.

Medicago is a leader in proprietary plant-based technology that uses virus-like particles (VLPs) to develop protein-based vaccines instead of relying on animal products or live viruses. Virus-like particles are used to create plant-based vaccines, which mimic viruses, enabling the body's immune system to recognize them and create an immune response. But they lack the core genetic material of a virus, so they are not infectious and cannot replicate. Medicago's technology only requires the genetic sequence of a viral strain, not the live virus itself. So, the company can mass-produce a therapy to attack a pandemic infection like COVID-19 soon after health officials identify it. By comparison, traditional vaccine development in chicken eggs takes six to nine months.

Using a plant-based approach is relatively new but has advanced rapidly in the past decade. For its COVID-19 vaccine, Covifenz, Medicago is using a virus-like particle grown in Nicotiana benthamiana, a close relative of the tobacco plant. This world-first, plant-derived COVID-19 vaccine was approved by Health Canada in late February 2022 and will be available in the country for adults aged 18 to 64.

Due to the close alignment of its own R&D and the potential synergies with this pharma company, PMI acquired a stake in Medicago in 2013, and currently holds approximately 23 percent of the company's shares, as part of a wider push into wellness and healthcare products.

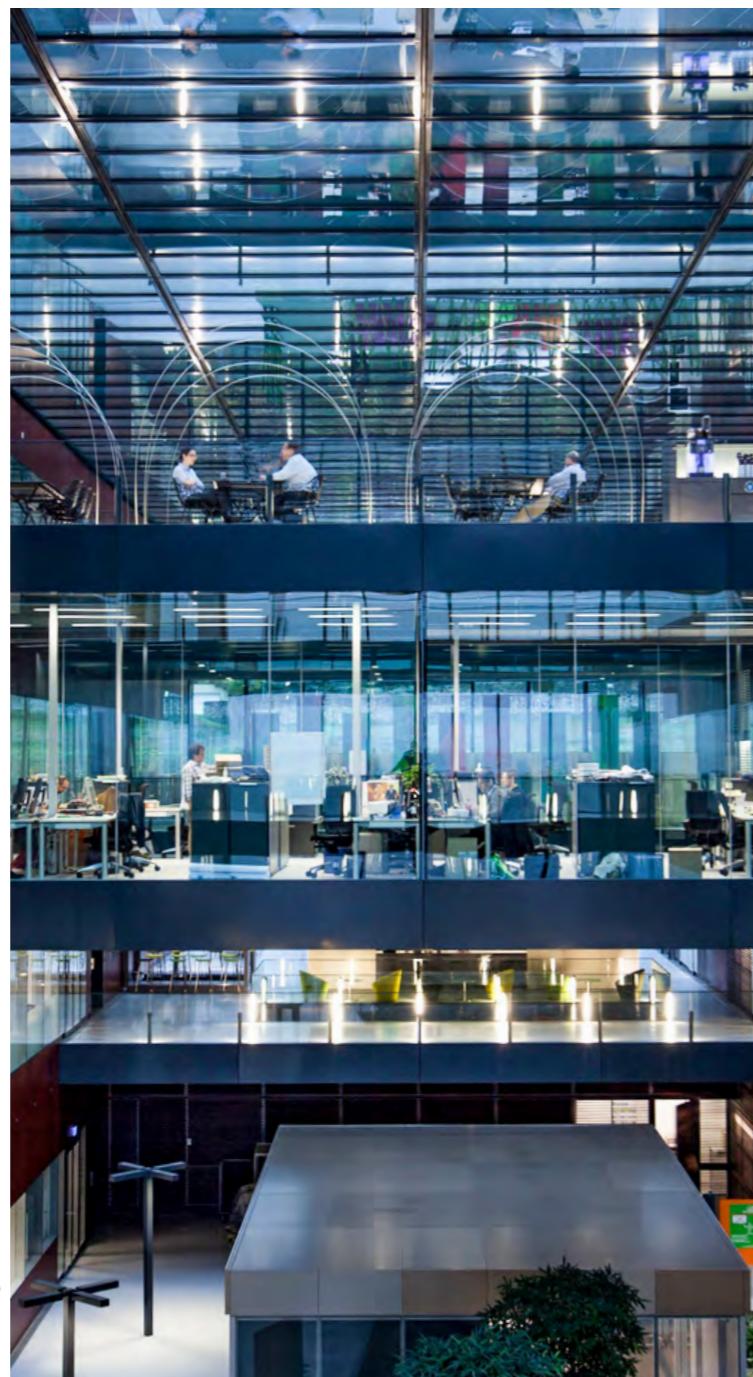


Venture funding

We announced plans in October 2021 to dedicate a further USD 200 million to minority investments in early- and growth-stage companies through PM Equity Partner (PMEP), our corporate venture capital arm. This allocation follows a 2016 commitment of USD 150 million, which PMEP has since fully invested, and is intended to support PMI's smoke-free and beyond nicotine ambitions.

PMEP is focusing its investment activities on four distinct technology segments, investing in innovative and agile companies to drive and accelerate transformation at PMI:

- Life science innovations, such as inhaled therapeutics and computational research methodologies. Portfolio companies, including Biognosys (next-generation proteomics) and Biofourmis (AI healthcare), reinforce the active role of PMEP in this space. In addition, PMEP scouts substantiated self-care wellness companies in areas such as sleep, energy, calm, and focus.
- Industrial technologies such as robotics and automation, the internet of things, and technology-based process optimization.
- Product technologies, particularly those that relate to inhalation and aerosolization, chemical formulation, and biometric authentication.
- Consumer engagement technologies, such as user identification and age authentication, innovative customer care, and experience management. For instance, the portfolio company BOW Group is actively involved in driving PMI's consumer engagement with its products and technologies.



PMEP is focusing its investment activities to support PMI's strategy in life science and wellness, industrial technologies, product technologies, impact investing, and consumer engagement technologies. Through early- and growth-stage investments, PMI will leverage its strengths to help invested companies translate innovation into commercial success. Learn more [here](#).

Looking ahead



Our vision for the wellness and healthcare business is to develop best-in-class consumer health and inhaled prescription products that will improve people's lives and address some of today's significant unmet needs. With the acquisition of Vectura, Fertin, and OtiTopic, we have brought the technology platforms and talent on board that—combined with our scientific knowledge in preclinical safety, clinical, and regulatory—have laid the foundation for PMI to evolve into a broader wellness and healthcare company. Vectura and OtiTopic will form the backbone of our ambition in the inhaled therapeutics and inhaled consumer health space, where we have developed an initial pipeline of products that aim to bring revenue as of 2024. Fertin, with its differentiated, modern oral formulations, will become the driving force behind our ambitions in the self-care wellness space. In addition, we have brought on board senior leaders and other talent from the pharmaceutical and consumer health industry who will help us turn our ambition into reality.

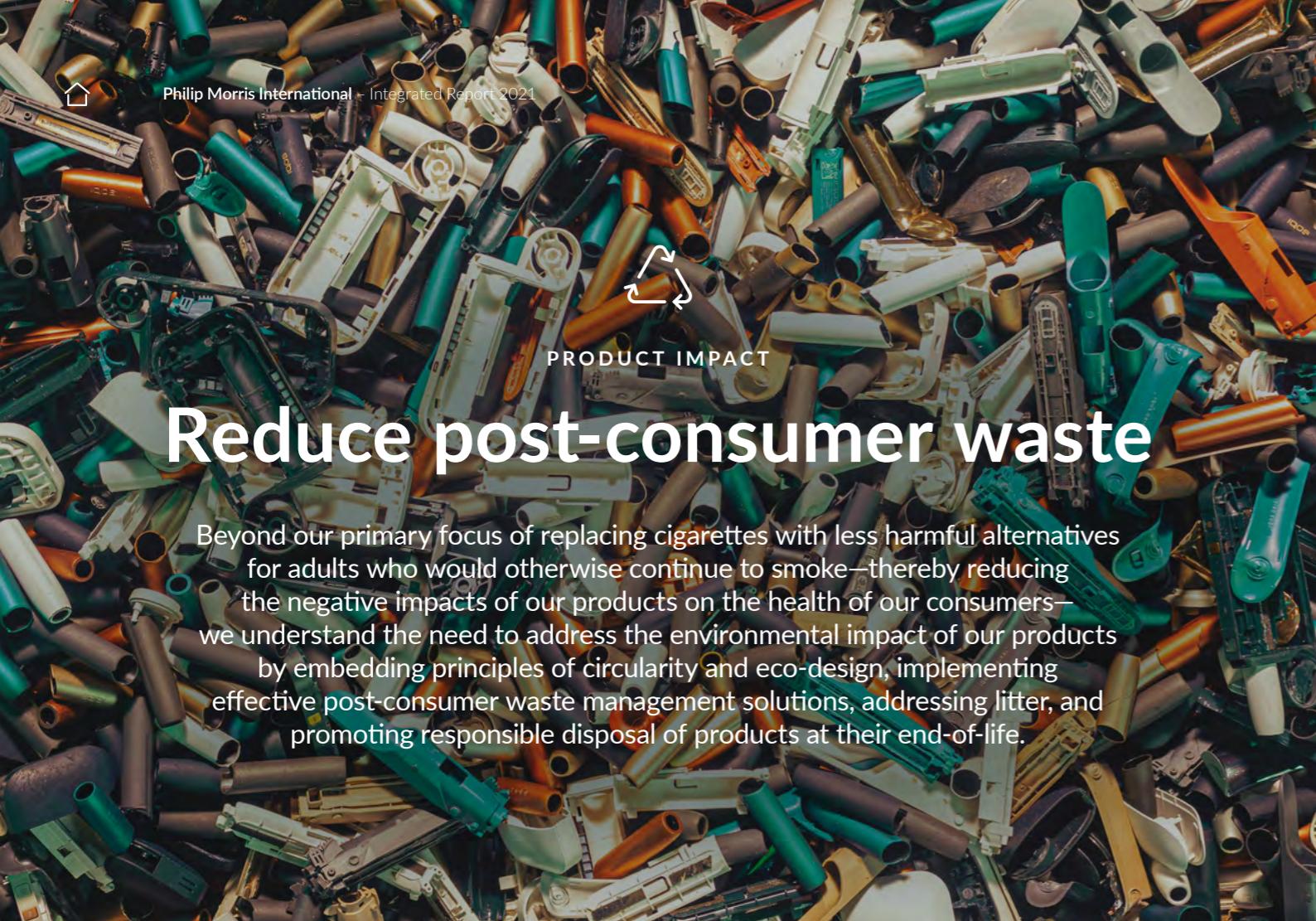
Jorge Insuasty, President, Vectura Fertin and Chief Life Sciences Officer



Our scientific and technological leadership has enabled us to reinvent our company in our pursuit of a smoke-free future. We will continue our journey, aiming to generate at least USD 1 billion in annual net revenues from products in wellness and healthcare by 2025, by leveraging and integrating recent acquisitions that give us the capacity to keep developing in areas that have net positive impact. These acquisitions further highlight that our long-term plan is equal parts solid strategy, strong financials, and best-in-class sustainability performance. Through our venture capital arm, we also plan to invest in and closely follow up on early- and growth-stage companies focused on life science innovation, industrial technologies, product technologies, and consumer engagement technologies that can help us propel progress on our purpose.

Emmanuel Babeau, Chief Financial Officer





Reduce post-consumer waste

Beyond our primary focus of replacing cigarettes with less harmful alternatives for adults who would otherwise continue to smoke—thereby reducing the negative impacts of our products on the health of our consumers—we understand the need to address the environmental impact of our products by embedding principles of circularity and eco-design, implementing effective post-consumer waste management solutions, addressing litter, and promoting responsible disposal of products at their end-of-life.



CONTENTS

100 Our management approach
Progress in 2021
101 Focusing on plastic
102 Addressing cigarette butt littering
105 Managing waste from our smoke-free consumables
109 Improving circularity of our smoke-free devices
114 Reducing and improving packaging
117 Looking ahead

The right thing to do

At PMI, we believe we can and should play a role in reducing waste from our products and addressing the issue of littering by helping develop and scale up innovative solutions.

Reducing and appropriately managing post-consumer waste means we can extract, convert, and use fewer raw materials from a planet with limited natural resources. Moreover, committing to the safe and responsible disposal of this waste is the right thing to do, as we share society's concerns regarding the impacts of litter—such as pollution and harm to wildlife. We recognize our role in working to preserve natural environments.

The business case

Beyond ecological considerations, inadequate post-consumer waste management and litter carries societal and financial impacts ranging from cleanup costs to perceptions of untidiness and reduced safety in areas with high litter prevalence. Appropriately addressing post-consumer waste helps us enhance our brand equity and company reputation and meet consumer expectations. It also allows us to mitigate implications for our bottom line, as producers increasingly are asked to participate in cleanup costs, for instance. Finally, it motivates us to innovate in a way that can drive competitive advantage by devising more circular value chains. These value chains are linked not only to less waste and less litter but also to better use of materials and higher operational efficiency—all of which are good for our triple bottom line.

OUR ASPIRATIONS			(SI) Sustainability Index
2022	Devices	Consumables	Packaging
2023	70% effective recycling rate of our IQOS devices ²		100% recyclable inner liners by year-end ¹
	≥1 million (SI) smoke-free electronic devices refreshed or repaired (cumulative since 2021)	≥80% (SI) of shipment volumes covered by markets with anti-littering programs in place for combustible cigarettes	
	100% (SI) of smoke-free electronic devices introduced on the market as of the end of 2025 that have eco-design certification	≥80% (SI) of shipment volume covered by markets with end-of-life take-back programs in place for smoke-free consumables	
2025	100% of PMI smoke-free product users have access to collection and recovery of devices	80% effective recycling rate of our IQOS devices ²	100% of packaging made with recyclable materials
			95% of packaging materials coming from renewable sources
			15% reduction of packaging materials weight versus 2018 baseline

¹ For all markets where possible in compliance with local regulatory requirements.

² Effective recycling rate is calculated based on the proportion of device sales volume covered by the CIRCLE hubs program multiplied by the recycling rate of devices at the CIRCLE hubs (weighted average).

Our management approach

Our intention is to preserve resources, reduce waste, and prevent inappropriate disposal, including littering. We do this by designing our products with the principles of circularity and waste reduction in mind, accounting for the products' environmental impact at the early stages of development, and offering consumers solutions to play their part and dispose of end-of-life products appropriately.

To reduce post-consumer waste across our portfolio, we seek to design and implement impactful strategies tailored to our various products and packaging and tied to specific targets:

- Cigarettes:** We aim to reduce cigarette butt littering by encouraging behavior change through impactful awareness-raising campaigns and by empowering consumers to dispose of cigarette butts appropriately. We also intend to tackle the issue at the source, continuously working to replace the plastic in filters with better, more sustainable alternatives.

- Smoke-free consumables:** As we grow our smoke-free business, we seek to ensure that the consumables used with our electronic devices are disposed of responsibly at their end-of-life and that users have access to take-back and recycling schemes that have an environmental benefit, are economically viable, and are valued by consumers. Further, we strive to design new generations of consumables with waste reduction and recyclability in mind.

- Smoke-free electronic devices:** To reduce the depletion of finite resources, we aim to integrate sustainability into our product design, drive circularity by improving recyclability, and increase opportunities to refresh and repair used devices.

- Packaging:** We strive to minimize packaging materials and improve their circularity by increasing their recyclability and promoting the use of materials made from renewable resources.

Our strategies and related initiatives are guided by a set of policies and principles, including our [Environmental Commitment](#), [Anti-Littering Policy](#), and [Sustainable Design Framework](#), complemented by specific internal guidelines.

In 2021, to accelerate the delivery of a smoke-free future, PMI established a new category management structure for its smoke-free and combustible cigarettes businesses. Our President, Smoke-Free Products Category & Chief Consumer Officer and our President, Combustibles Category & Global Combustibles Marketing are responsible for driving our agenda on post-consumer waste management for their respective categories. Additional efforts are steered cross-functionally. With regard to our smoke-free products, we set up a dedicated cross-functional governance board in 2021 which oversees strategies and progress related to our device life extension and consumables end-of-life programs.



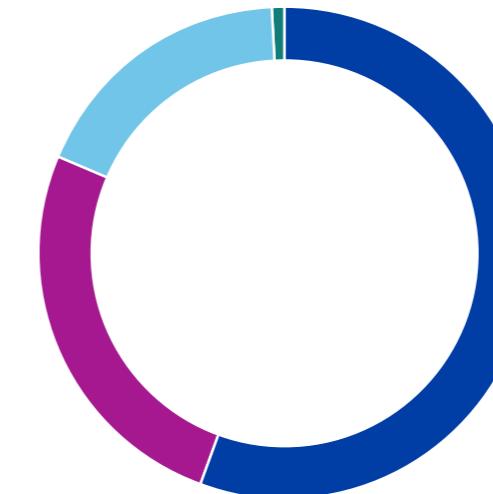
Progress in 2021

Focusing on plastic

As a global manufacturer, we source plastic materials and plastic-containing items for products such as our consumables (e.g., our heated tobacco units and cigarettes), devices, and packaging.

Globally in 2021, we purchased around 136,000 tons of plastic. The largest share was bioplastics used in the filters of cigarettes and heated tobacco units.

PMI's 2021 plastic footprint



Cigarette filters	55.8%
Heated tobacco unit filters	25.6%
Packaging	17.8%
Electronic devices	0.8%

Note: Plastic footprint is calculated excluding KT&G commercialized by PMI, e-vapor products, and nicotine pouches. In 2021, we adjusted our methodology to calculate our plastic footprint and incorporated additional primary data.

One of our main end goals is to tackle the plastic pollution caused by the littering of our products. During 2021, as announced in our [2019 Integrated Report](#), we focused on better understanding our global plastic litter footprint. To measure this, we combined data for our company's overall plastics footprint with data collected from consumer behavior in different countries and for different products. More concretely, for relevant plastic-containing products that we market (including consumables and packaging), we assessed littering rates through consumer surveys in our main markets. We then calculated the resulting amount of plastic being littered by product based on full year sales data multiplied by plastic content and by littering rate.

In addition, following a 2020 pilot in Portugal, we fine-tuned our model to broaden its application and measure the prevalence of plastic litter resulting from our cigarettes and heated tobacco units found on the ground.

For this initiative, we teamed with Litterati, the leading anti-littering organization, who collected litter data in more than 50 cities in 40 countries and photographed litter items in various urban environments. Data analyst CARTO then extrapolated the georeferenced data collected locally to provide us with global figures. A deeper analysis of the litter prevalence data revealed insights useful in improving our anti-littering campaigns. For example, our study uncovered that cigarette butt litter is more prevalent in commercial, business, and commuting zones and lower in residential areas. Food, drink, and leisure establishments, bus and train stops, and areas illuminated at night all showed higher litter prevalence. Customizing awareness campaigns to users in these areas, therefore, can be more effective. Working in collaboration with these partners allowed us to generate detailed litter prevalence maps for cities and countries worldwide that will inform future campaigns.

The combination of these two exercises—calculating our global plastic litter footprint and the prevalence of plastic litter resulting from our consumables—proved to be a valuable learning experience, which honed our understanding of both the complexity of the issue and the need for concrete metrics to measure progress and guide our actions moving forward, in a way that can prove useful and impactful.

While our original intent was to leverage this methodology annually to monitor progress towards decreasing the amount of plastic littered, the exercise revealed limitations to this approach. Limitations include the lack of reliable and standardized consumer behavior studies as well as the exacerbated reliance on assumptions and extrapolations which made the methodology unreliable, very expensive, and not very impactful. We also realize there is a need to establish tailored and context-based targets, accompanied by detailed strategies and initiatives that can best encourage behavior change, prevent littering, and support cleanup activities, while defining concrete and clear ways to both define success and be able to measure progress towards achieving it. Moreover, working toward removing plastic litter highlighted the opportunity business can have in offering opportunities for innovation to resolve systemic issues, like the one that relates to plastic litter.

There is a pressing need for our R&D to support ongoing efforts that holistically resolve the issue of plastic pollution, starting from its source. This means finding ways in which we can reduce the amount of plastic used across our devices, consumables, and packaging through better design and the use of more sustainable materials.



Addressing cigarette butt littering

Around one million tons of cigarette filters are produced annually across the tobacco industry.¹ Although most are disposed of properly post-consumption, too many are casually littered into the environment.

Our approach

To tackle cigarette butt littering, we apply a three-pronged approach:

1. **Design for circularity:** Invest in R&D toward filters made of more sustainable, plastic-free alternatives that allow faster biodegrading, resolving the issue of plastic litter altogether.
2. **Encourage behavioral change:** Inspire change in consumer habits through impactful anti-littering awareness programs and initiatives to empower consumers to dispose of cigarette butts properly. These initiatives include communications campaigns and cleanup activities to raise awareness, partnerships, portable disposal solutions, and improvement of public equipment solutions.
3. **Reduce litter on the ground** through efficient and cost-effective collection schemes. In the EU, cigarette manufacturers will be required to contribute to the costs of collecting and cleaning up cigarette butt litter. The Single-Use Plastics (SUP) Directive requires that producers participate in industry-wide Extended Producer Responsibility (EPR) schemes. EPR is an established governance scheme for circular waste management; it is now being used for the first time in the EU to address the problem of littering. We support the concept of an industry wide EPR, provided such schemes are managed in a cost-efficient, proportionate, and transparent way that addresses the objectives of reducing litter and changing consumer behavior.

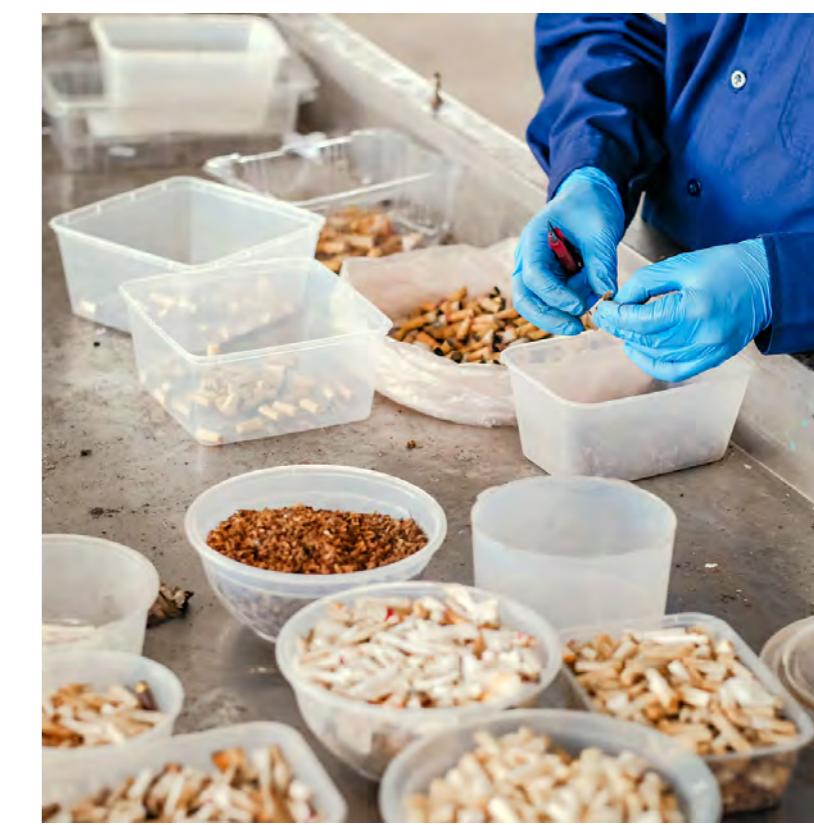
¹ <https://www.pmi.com/media-center/news/new-pmi-survey-finds-encouraging-signs-in-cigarette-butt-littering-behavior-and-attitudes-and-key-areas-to-address>

With behavioral change being one of the key elements of our strategy, we understand the need to develop and implement actions that respond to local realities and the socioeconomic and cultural specificities of the various places where we operate. With this in mind, we included a new ambition and corresponding KPI in our revamped 2025 Roadmap and Sustainability Index: for markets collectively covering more than 80 percent of our combustible product shipment volumes to deploy meaningful programs tackling cigarette butt littering by the end of 2025.

Design for circularity

From an environmental perspective, the ideal and most sustainable scenario would be for our products to generate zero litter post-consumption. We continue to work toward this goal, seeking design options that avoid, or at least significantly reduce, the polluting impact of litter. Our intention is to develop filters with a significantly lower environmental footprint. We are aware that materials changes alone will not solve the littering problem, but they may help mitigate the environmental impacts of residual littering by those consumers who do not engage in behavioral change driven by anti-littering programs.

For many years, we have been actively investing in R&D to explore and assess the viability of alternative cigarette filter materials that have a lower environmental impact than cellulose acetate (CA), an already renewable and partially biodegradable material. We evaluate alternative filter materials via extensive analytical testing, machinability trials, biodegradation evaluations, and prototype testing among consumers to understand their acceptability.



Any new filter material or design must satisfy stringent criteria:

- Comparable filtration efficiency and performance consistent with CA filters
- Acceptable taste characteristics and experience for consumers
- Similar or reduced material carbon footprint compared with CA filters
- Substantial improvement in marine, aquatic, and soil biodegradation compared with CA filters or a significant reduction in the plastic content of the filter
- Conduciveness to industrialization at scale

Over the past years, some tested materials have met one or more of the above criteria but we are yet to find an alternative to CA that satisfies all five. We will continue to explore options as new materials and processes become available, and science and innovation evolves.

In 2022, we plan to continue our exploration and use consumer research to better understand and validate consumer acceptance of alternative non-plastic filters in some of our key markets.

What are cigarette filters made of?

The main constituent of cigarette filters is cellulose acetate (CA), a bioplastic made from wood-based cellulose. Contrary to common belief, CA does biodegrade over several months or years (depending on the surrounding conditions) and does not accumulate in the environment over time. In contrast, conventional plastics made from petrochemicals take hundreds of years to degrade, often breaking down to form microplastics.

Encourage behavior change

While many consumers dispose of their waste properly, too much waste ends up in the environment. We seek to help change behaviors to prevent cigarette butt littering and encourage proper waste disposal. To that end, we run global and local awareness and anti-littering campaigns.

Tackling the issues of cigarette butt littering locally

Smoking habits, environmental awareness, and disposal practices vary by country, so combating cigarette butt littering requires tailored approaches. Accordingly, our affiliates follow a global methodology while also focusing on impactful, context-based strategies appropriate for their respective markets. These local anti-littering campaigns are run by our affiliates, with central support and guidance. In 2021, we had active campaigns in 46 countries.

Our efforts to raise awareness focus both on specific littering hot spots—such as high-traffic urban areas, squares, and parks identified as priorities by local authorities—and on reaching significant numbers of consumers to drive societal change. Insights gathered from our litter prevalence assessment in 2021 will help further guide our work, allowing us to strategically focus on those areas with the highest incidence of littering.

Cleanup campaigns are predominantly designed to raise public awareness of the littering problem in the communities in which they occur rather than resolving the problem of littering or replacing more cost-efficient public cleaning services. For instance, in Canada, through a collaboration with the Great Outdoors Fund in 2021, we supported 20 local organizations with cleanup initiatives involving more than 600,000 volunteers who collectively donated over 10 million hours of their time to gather 1,700 tons of litter.

CASE STUDY

Partnering up to tackle the littering problem through innovation in Mexico

We also partner with civil society organizations on cigarette butt collection projects as part of our wider awareness-raising efforts and with a view to developing viable recycling solutions for cigarette butts. For example, our affiliate in Mexico developed a comprehensive communication campaign that engages adult smokers and other citizens in helping to solve the problem of waste management. The initiative has created a nationwide network of volunteer ambassadors who bring communities together to collect cigarette butts, with more than 400 collection points nationwide. The team has also partnered with Ecofilter, an organization that has developed an innovative biotechnological treatment that regenerates cellulose acetate into cellulose pulp.

 [Read more in our case study here.](#)



Raising awareness globally

As in previous years, we had the opportunity in 2021 to join the annual World Cleanup Day (where COVID-19 conditions allowed it). Our affiliates' participation in this global action—the world's largest litter cleanup event—is part of our public sensitization efforts and signals our broader commitment to tackle the issue of cigarette butt littering. While the pandemic limited many of the events we had planned, around 3,150 volunteers across 53 countries (including PMI employees and their friends and family members) actively contributed to picking up around 17 tons of litter. We added a global challenge element to the activity through a partnership with Litterati, whereby participants could download a mobile app allowing them to log tally, and share how much litter they collected.

We also further developed [Our World Is Not an Ashtray](#), a web-based corporate platform to educate, inspire, and engage the public on the issue of littering. Through this campaign, we share facts and figures, testimonials, and calls to action. A few of our affiliates also use this platform as a basis for local awareness-raising initiatives.

In 2021, we also continued the deployment of our Marlboro limited-edition “Leave No Trace” pack, which communicates anti-littering messages to adult smokers in 11 markets (2020: nine). During the year, more than 30 million packs were sold at more than 482,000 points of sale, and we estimate they reached more than 2.3 million adult smokers.

Managing waste from our smoke-free consumables

We seek to minimize the environmental impact of the consumables used in our smoke-free category. These include the heated tobacco units (HTUs) used with our heat-not-burn products (including the HEETS brand used with IQOS 3 DUO and previous generations, the TEREAS sticks used with the new IQOS ILUMA, and the Fiit sticks used with *lil* devices), as well as the VEEV pods used with our e-vapor device. With each product launch, we will evaluate the need for a consumables take-back program based on environmental impact, consumer need, and market feasibility.

Long term, we aim to reduce our post-consumer waste by design and explore low-carbon, recyclable, and biodegradable alternatives to the materials currently used in our smoke-free consumables. In the interim, we are focused on establishing services to help our adult consumers reduce the end-of-life impact of our products.

The consumption and post-consumption behaviors related to our smoke-free products differ drastically from cigarette consumption. Unlike cigarettes, HTUs do not need to be stubbed out after use, and they contain no smelly smoke residues, which makes them easier to keep until proper disposal and therefore less likely to be littered. In 2020, we ran a survey in Lithuania to complement past studies in Greece, Italy, and Japan to measure the proportion of HTUs versus cigarette butts found on the ground. In partnership with third-party experts at Cortexia, we then compared that figure with the market share of HTUs versus all tobacco products. Across the three major cities in Lithuania, the percentage of used HTUs among tobacco products littered was between 2.4 and 4.5 times lower than their sales market share. This finding suggests that a heated tobacco unit is on average three times less likely to be littered than a cigarette butt.

Deploying anti-littering and take-back programs

To further mitigate the risk of littering, we have set an ambition as part of our revamped 2025 Roadmap to implement context-based, impactful anti-littering programs to collect and manage post-consumer waste from our smoke-free consumables in markets representing at least 80 percent of our smoke-free shipment volume by the end of 2025. We will report our progress annually against this new KPI. The programs align with global requirements to ensure consistency and comparability over time but are adapted to deployment realities in each market.

In 2021, we piloted such programs in nine markets—including those featured on the right—allowing us to gather valuable insights for a global rollout.

As these pilots unfold, we will continue to monitor their progress and share learnings globally. The insights and improvement opportunities will fuel the rollout of consumables take-back and recycling programs globally by 2025.



In March 2021, our affiliate in **Mexico** launched its take-back program for HTUs, with special collection bags made available to adult users at IQOS stores. The heated tobacco units are then processed by our partner Ecofilter using an innovative biotechnological treatment that regenerates cellulose acetate into cellulose pulp. Read more in the case study available [here](#). By year-end, more than one in 10 adult users was returning their used consumables to the stores.

"The partnership between Ecofilter and Philip Morris Mexico is a clear example of how our commitment to sustainability and to a smoke-free future are one and the same. With collaboration among stakeholders, vision, leadership, and resources, in addition to science and technology, a lot can be achieved, and we will deliver a smoke-free future."

Andrzej Dabrowski, Managing Director, PM Mexico

Our affiliate in **Canada** launched its smoke-free recycling program at the end of 2021, partnering with TerraCycle and inviting consumers to return their used heated tobacco units, VEEV devices, and any branded vape pod (including VEEV) at more than 120 convenient locations.

For the launch of VEEV in **Finland** in 2021, we took into account the consumer expectation of convenient recycling solutions for pods. Collection points have been established in 470 locations around the country. We also provide reusable collection pouches to consumers for greater convenience.



In **Guatemala**, we provide cornstarch resealable bags in which consumers can place their used HTUs and return them to collection points across the country. Meanwhile, in **Costa Rica**, consumables have been collected since December 2021 and used for ongoing research by the Chemical Regency of the University of Costa Rica. Various alternatives for recycling are currently under evaluation, including the production of biochar, a soil improvement solution.

"Consumers have responded very well to the opportunity to reduce their footprint and contribute to protecting the environment. We are convinced that we must face great challenges together in this ambitious journey for a more sustainable future."

Susana Vásquez, Director, External Affairs, PM Central America Markets

In **Switzerland**, at the end of 2021, we launched a pilot take-back and recycling program for heated tobacco units. Adult users of our smoke-free products can now collect HTUs in special bags and return them to our IQOS branded stores in person or via mail. We then send the collected HTUs to our recycling partner, TerraCycle.

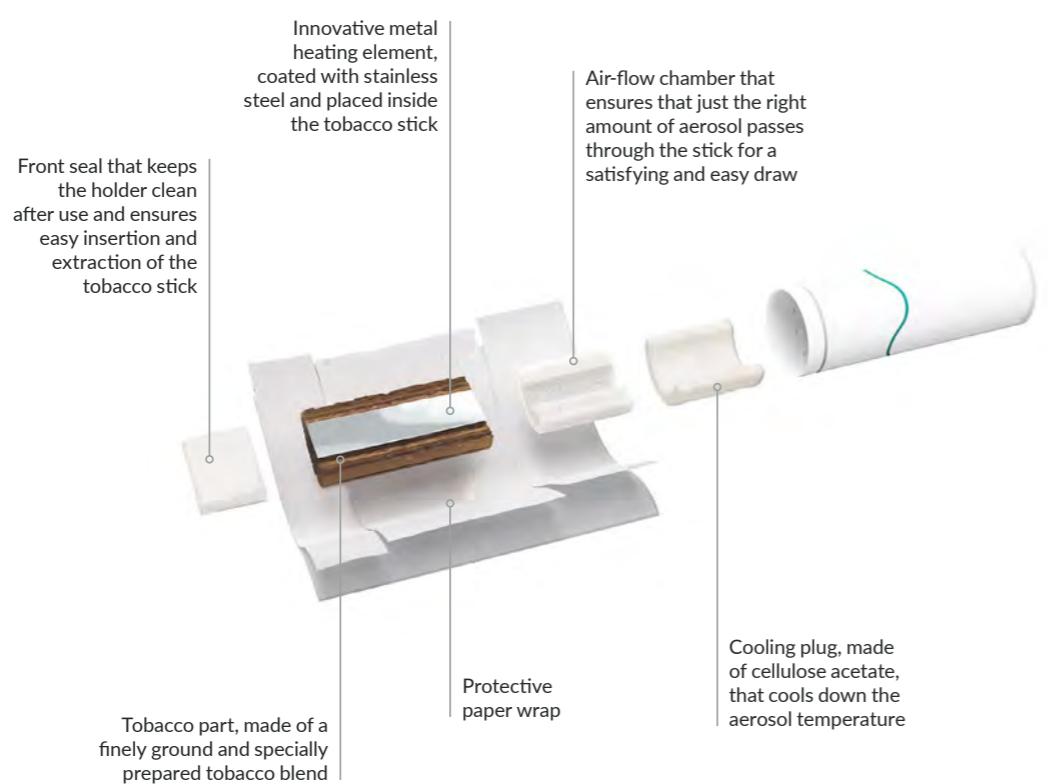
"We are very excited to pilot this innovative program for heated tobacco units in Switzerland, where sustainability plays an important role in day-to-day life. The HEETS and TEREÀ take-back program is only a first step toward reducing the waste generated by our products and is an expression of both our care and of our commitment to our consumers. Sustainability is at the heart of PMI's transformation, and we look forward to growing and evolving the program."

Alina-Virginia Frincu Director, Marketing and Digital, PM Switzerland

Introducing the innovative bladeless SMARTCORE INDUCTION SYSTEM™ –IQOS ILUMA and TEREA sticks

At the heart of the SMARTCORE INDUCTION SYSTEM™ is a metal heating element, coated with stainless steel and placed at the core of the TEREA tobacco sticks. The heating element has been specifically designed to heat TEREA tobacco sticks from within and release the taste of tobacco consistently throughout the entire experience. This technology allowed us to remove the heating blade from the ILUMA device, which simplified the insertion and extraction experience, improved the consistency of each stick performance, and eliminated the need to clean the device. The combination of consistent and satisfying taste experience with the ease of use and lack of need to clean the device creates a compelling value proposition to further accelerate conversion of adult smokers, advancing tobacco harm reduction.

As we continuously work to enhance the environmental profile of our products and support our littering reduction targets, the absolute weight of plastic content in TEREA sticks was reduced by approximately 45 percent compared with HEETS. To further support our littering reduction ambition, the consumables end-of-life program, designed to promote responsible post-consumer waste management, is included in the TEREA launch and roll-out plans, giving adult consumers a user-friendly way to collect and return their used consumables to us for responsible disposal or recycling.



Note: IQOS ILUMA is designed to be used only with TEREA SMARTCORE STICKS. IQOS ILUMA and TEREA SMARTCORE STICKS must not be used with previous generations of IQOS, as this may damage the device. As TEREA SMARTCORE STICKS contain a sharp metal part that can cause serious injury if swallowed, they must be kept out of reach of children and pets, and must not be ingested or disassembled.

Improving circularity of our smoke-free devices

By integrating sustainability considerations into our product design—from development to end-of-use—we can reduce environmental impacts as well as associated costs.

Our approach

At PMI, we are committed to understanding and managing environmental impacts across our entire value chain, including the life cycles of our products. Improving the sustainability profile of our smoke-free products is particularly important as we continue to deliver technologically advanced products for adults who would otherwise continue to smoke or use other nicotine products. These products are at the heart of our transition to a smoke-free future.

With respect to our smoke-free product devices, our 2025 eco-design and circularity ambitions are as follows:

- Provide access to device collection and recovery to all IQOS users
- Continue to reduce the carbon footprint of our smoke-free products in line with our science-based targets
- Achieve eco-certification for all PMI smoke-free electronic devices introduced on the market as of the end of 2025
- Pursue improvements in areas such as durability, design for repair, and recycling

Meeting these goals relies on a systematic approach that considers sustainability from the start of the product development process. Our work is guided by our [Sustainable Design Framework](#), which accounts for impacts related to materials selection and sourcing, components production and product manufacturing, distribution, use, and product end-of-life. The guidelines are embedded into our innovation stage-gate processes, and we continually reinforce our requirements and principles at each design stage gate.

To manage the end-of-life of our electronic devices, our centralized CIRCLE hubs inspect, process, and separate materials for recycling. We continue to grow the capacity of these hubs, also implementing repair and refresh capabilities, and to expand their coverage by onboarding new markets. In certain instances (e.g., in the case of challenges related to cross-border transportation of electronic waste), we will complement our centralized approach with local solutions. We expect to leverage the learnings from our CIRCLE hubs to guide and centrally govern such local solutions, ensuring they are aligned with our standards and support progress toward our global recycling targets.

Embedding eco-design principles into our products

Each product generation we launch incorporates improvements in quality, ease of use, durability, or performance.

Durability by design

In 2021, we started the commercialization of the latest generation of our heat-not-burn devices, under the IQOS ILUMA brand. These bladeless devices offer a cleaner way to heat tobacco from the core, without burning it, to provide a more consistent experience, no tobacco residue, and no need to clean the device. This supports our objective to design products with a prolonged life cycle and to mitigate potential returns due to consumer complaints. Further, it allowed us to minimize product accessories thus reducing the amount of resources and materials used, as cleaning sticks and other tools are no longer needed.

Reducing our product carbon footprint

In general, our smoke-free products have a higher carbon footprint than combustible cigarettes. This is primarily due to the inclusion of an electronic device, which involves new components and requires electricity to charge. Additionally, the process used to manufacture consumables such as HTUs is more energy intensive than for cigarettes due to the production of cast leaf tobacco.

We are working to reduce the carbon footprint of new versions of our smoke-free products compared with previous ones through improved manufacturing processes, extending the usable life of our electronic devices, and decreasing the total carbon footprint through smart materials selection and sustainable design practices.

We use life-cycle analysis (LCA) to assess the carbon footprint of our products, from tobacco sourcing to device end-of-life impacts. This analysis applies to IQOS devices, heated tobacco units, and packaging.

In 2020, we finalized the results for our new heat-not-burn product, IQOS ILUMA, which we launched in two markets in 2021.

IQOS ILUMA represents a new generation of products and therefore sets a new baseline for carbon footprint. It comes with new induction technology and quality improvements that address consumer pain points and aims to prolong the product life cycle, hence reducing its environmental impact over time despite a slightly higher carbon footprint than previous device generations that were based on blade technology. We strongly believe that IQOS ILUMA will be a key driver to support our smoke-free future objectives.

We aim to drive continuous improvement in future product generations. To this end, we have designed assessment guidelines to further embed sustainability (including carbon-related) considerations in the early stages of the development process. We will start applying those guidelines as part of our roadmap toward eco-design certification.

Eco-design certification

Product eco-design certification can drive performance by raising the standards to pursue and provide comprehensive information to consumers, enabling them to make more sustainable product choices when switching from cigarettes to smoke-free products. In 2021, we conducted an in-depth assessment of certification schemes and established a roadmap to meet our ambition of having all smoke-free electronic devices launched as of the end of 2025 eco-design certified. We also established a dedicated committee composed of senior leaders from our Product team.

Smoke-free products—and heated tobacco products, in particular—are a relatively new product category. As such, they typically are not covered by existing eco-design certification standards. Accordingly, we are implementing a two-pronged approach. Ultimately, we seek to develop and implement new category standards as necessary to achieve our certification goal. In the shorter term, we are working to identify other ways to publicly disclose the sustainability performance of our products through structured disclosure programs.

A prerequisite to achieving our product eco-design certification ambition is to continue cascading our criteria for sustainable design and integrating eco-design certification requirements into our materials selection and development processes.

Extending smoke-free product life cycle

We strive for our products to last and increasingly aim to refresh and repair them so they stay in use as long as possible. Achieving this starts with imposing high standards of quality and reliability (read more [here](#)) and extends to proper care, steps to refresh, repair, and refurbish devices, and recycling. In other words, we are evolving from a collection-for-recycling model to a collection-for-recovery one. This means we need to develop criteria to facilitate the product triage needed to expand our refresh and repair capabilities.

In this context, we have identified the following key dimensions to be addressed: (1) collection and triage of devices, distinguishing between those to be recycled and those to be refreshed or repaired; (2) refresh and repair capabilities that meet quality requirements; and (3) re-marketing of products.

The first two pillars are highly interdependent, as the criteria and procedures for device triage are linked to the extent of our refresh and repair capabilities. As these capabilities will strengthen over time, the triage model will also evolve, allowing a greater proportion of devices to be refreshed or repaired.

Preserve through proper device care

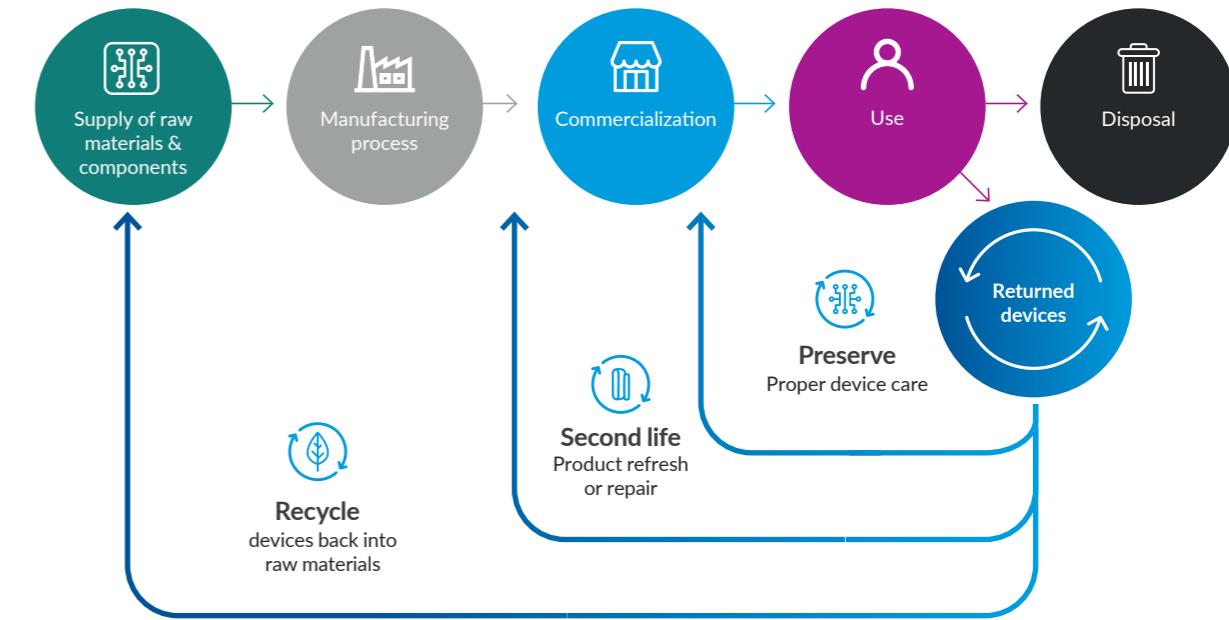
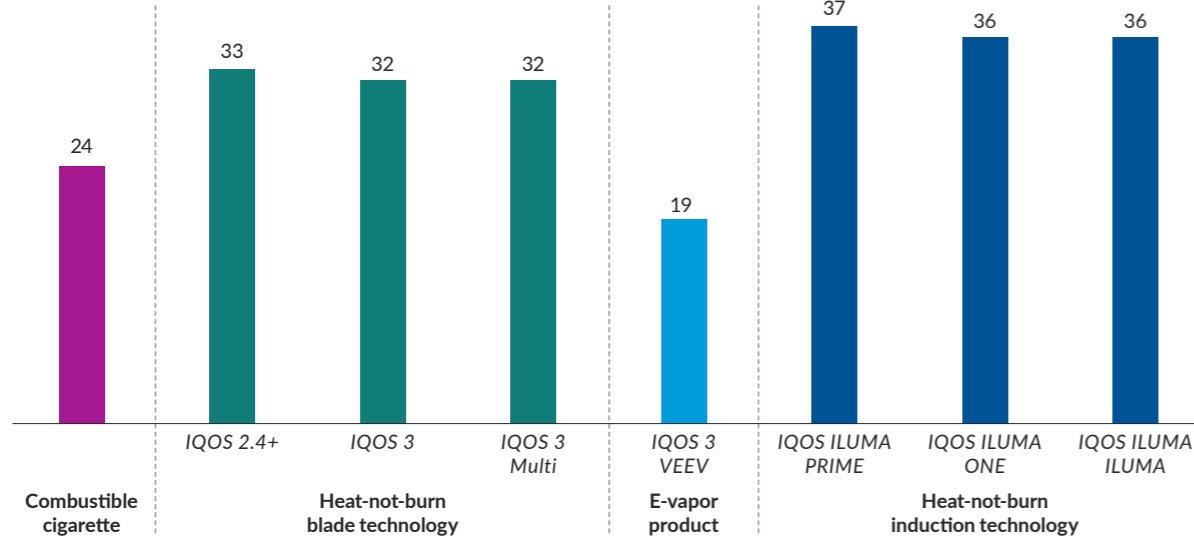
The first pillar of our work is device life extension through better care.

We strive to help users of smoke-free electronic products look after their devices so they serve them longer and to encourage them to return the devices to us after use so we can give them new life via a refresh, repair, or recycling. We seek to minimize consumer pain points with simple tips pertaining to regular device cleaning at home or professional cleaning in our boutiques, software updates, and proper charging. These simple actions help reduce the number of devices ending up as waste.

Building on this work, we are leveraging processes and tools in our sales channels (e.g., our stores, e-commerce websites, and IQOS coaches) to prolong the life of our devices and avoid e-waste through appropriate device care.

These efforts include avoiding unnecessary product replacements through proper device diagnosis and streamlined procedures for returns, warranties, and loyalty programs. In 2021, we maintained or expanded several service-based solutions aimed at extending product lifetimes through device optimization and maintenance.

Life-cycle assessment: Comparison of some PMI products (kgCO₂e/year)



This graphic is an internal assessment based on data compiled from three different LCAs and assumes 20 heated tobacco units per day. Scope includes materials, manufacturing, and end-of-life, but excludes logistics.

For instance, we released a global campaign and made a mobile application available for IQOS users in 18 markets that provides tips on how to use and clean the devices, as well as basic troubleshooting instructions. We also installed firmware upgrade retail solutions in all markets in which our smoke-free products are sold to make device maintenance more convenient and support product life-cycle extension. Overall, the combination of device quality improvements and consumer-facing efforts contributed to reducing our device return rate by around one-third in the past two years.

Promote device second life: refresh and repair

We strive to establish commercially viable programs that offer a second life to devices and cycle them back into the economy.

We are in the early stages of moving from a collection-for-recycling model to a collection-for-recovery model, which will help us attain meaningful circularity. We took steps in 2021 to prepare and scale up capabilities at our CIRCLE hubs to enable the processing of devices for a second life. To guide us in this journey, we have set an ambitious target to refresh or repair at least one million smoke-free electronic devices by 2025 (cumulative since 2021). Key prerequisites of a successful second-life strategy include the ability to collect and sort devices, distinguishing between those to be recycled and those to be recovered, and to repair devices according to quality and safety standards.

“Considering that we launched IQOS in the Czech and Slovak markets back in 2017, naturally some of our customers possess devices that have reached the end of their technological life cycle. We would like to motivate them not to throw the electronic equipment in mixed waste, but rather to return it to us so that we can take care of it on their behalf.”

Marta Barbara Keszczynk Head of Direct Retail,
PM Czech Republic and Slovakia

In 2021, to build a foundation for our device second-life program, we conducted pilots to test the IQOS refreshed value proposition in several markets across Europe and Asia. In five of these markets (Austria, Germany, Japan, Switzerland, and U.K.), we collected and refreshed devices returned by consumers at the end of the device trial period (our lending program allows adult smokers to test the product for a maximum of 30 days). Product refreshes do not involve replacing internal components but, rather, swapping in new external components when damaged, deep cleaning, and repackaging. We worked with our partners at our CIRCLE hubs in Hungary and Japan to apply triage criteria. We determined whether each component merited recovery or recycling, primarily focusing on the IQOS chargers and holders. We also considered user documents, packaging boxes, and charging cables. We refreshed around 62,000 devices during this pilot phase and resold them in eight markets (the five pilot countries plus Malaysia, New Zealand, and Portugal), either as a pilot or as part of the standard product assortment. Overall, the results of the pilots, along with consumers' direct feedback and research insights, confirmed the validity and potential of the second-life concept and encouraged us to continue our journey toward circularity.

The refreshed products were sold at lower price points than new ones and demonstrated high consumer satisfaction.

Also in 2021, we piloted an extended collection of used devices from consumers in two markets: the Czech Republic and Slovakia. Our take-back program has been designed to accept returns of any used devices consumers no longer want. We deployed dedicated collection boxes across our IQOS retail network, covering 56 shops in the Czech Republic and 19 in Slovakia. We then sent the returned electronic devices to the CIRCLE hub in Hungary for recycling. The initiative has been met with a very positive reaction from consumers.

One of our next priorities will be to expand the collection of used devices via other consumer programs and increase their processing for a second life. We plan to further expand the program's geographic coverage and will continue to increase our refresh and repair capabilities.

Enhance circularity: device recycling

For those broken or end-of-service products that cannot be given a second life, our reverse-logistics program helps to recycle materials back into the economy. Our CIRCLE program provides centralized hubs that inspect, process, and separate materials from our electronic devices for recycling.

Our CIRCLE hubs in Hungary and Japan continued to drive excellence in e-waste management in 2021. The recycling rate of our products in these two hubs combined stood at 86 percent for the year (78 percent recycling and 8 percent incineration with energy recovery). We also continued expanding CIRCLE hub coverage, bringing the total to 14 markets covered by our CIRCLE program at the end of 2021. This allowed us to achieve 63 percent market volume coverage globally (up from 48 percent in 2020) and progress toward our target of 100 percent by 2025.

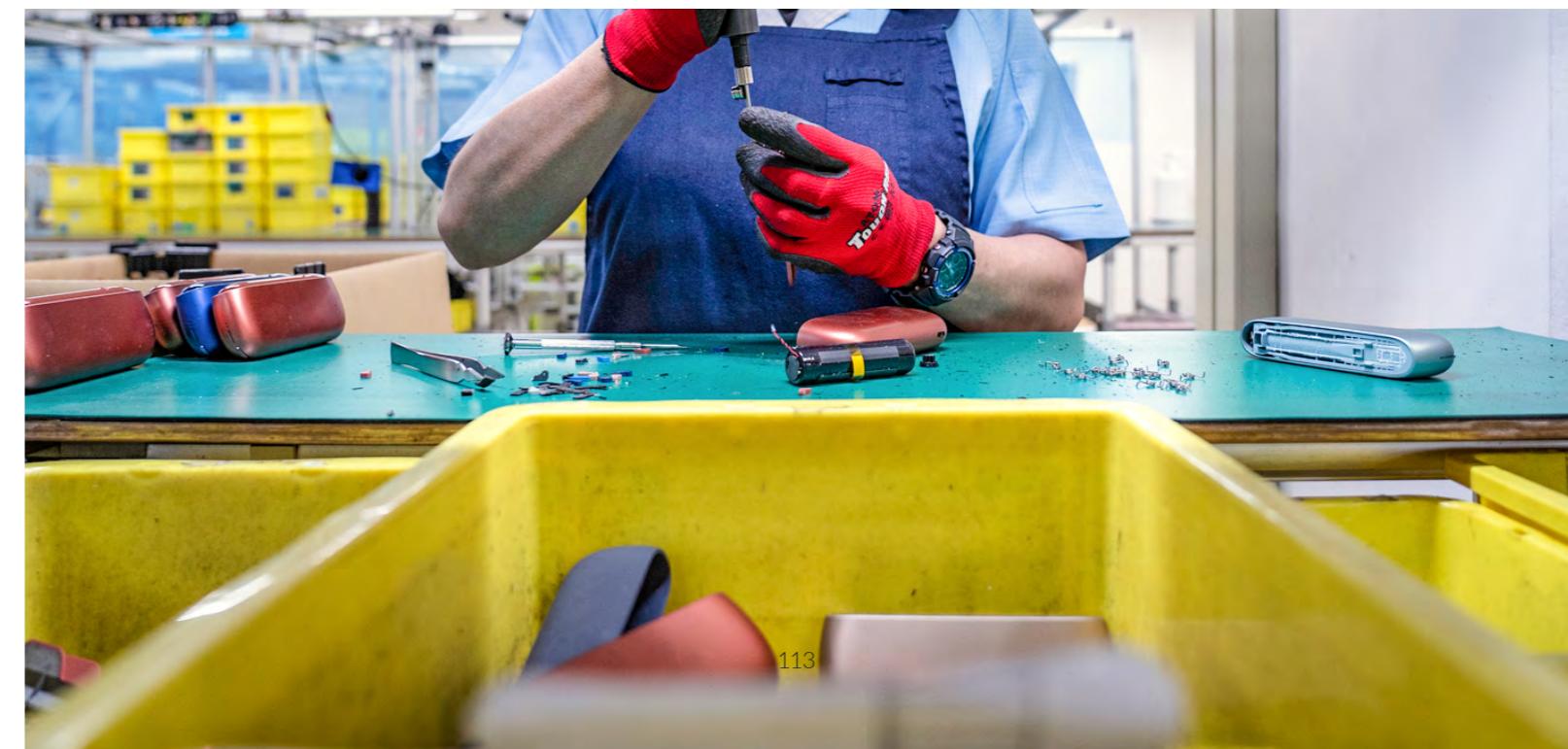
Considering regulatory restrictions related to e-waste transportation, we cannot fully leverage our recycling standards at the centralized hubs. Hence, we will further assess potential CIRCLE capabilities that may be implemented locally yet governed by central standards. In 2022, we plan to define a set of consistent criteria to account for local solutions under our CIRCLE program. Nonetheless, our key objective remains to drive centralization of our efforts, as we believe this approach can bring several benefits, including economies of scale, regional investment, illicit trade prevention, and quality enhancements (accelerating design and manufacturing improvements).

We remain committed to maintaining a recycling rate of above 80 percent for our smoke-free devices in our CIRCLE hubs while gradually expanding coverage. As new hubs and products are introduced, we will continue to improve our recycling capabilities. We aim to increase our effective recycling rate from 53 percent in 2021 to our target of 80 percent by 2025.¹

Accessories

As we progress with device recycling, we are exploring possibilities to close the loop by reusing materials to produce new accessories for our products. For instance, we have designed a collection of IQOS 3 accessories made out of IQOS devices recycled in our CIRCLE hubs. The collection consists of four SKUs and will be launched in three markets as a pilot. We expect this initiative to further encourage consumers to play an active role in reducing post-consumer waste.

¹ The effective recycling rate is calculated based on the proportion of devices covered by the CIRCLE program multiplied by the actual recycling rate of devices at the CIRCLE hubs in Hungary and Japan (weighted average), to which we add the theoretical recycling rate of the Russian CIRCLE hub, established in late 2021, multiplied by the CIRCLE program coverage of the Russian market.



Reducing and improving packaging

Our approach to packaging contributes significantly to our efforts to preserve and protect the planet's resources.

We use packaging for all our products, including cigarettes and smoke-free electronic devices, consumables, and accessories.

Our approach

We aim to develop solutions that minimize packaging materials and improve their circularity without compromising protection and convenience. We are driving our approach through ambitious commitments. We aim to achieve:

- 100 percent recyclable inner liners by the end of 2022¹
- 100 percent of packaging made with recyclable materials by 2025
- 95 percent of packaging materials made from renewable sources by 2025
- 15 percent reduction in packaging weight by 2025 (versus 2018 baseline)

To deliver on these commitments, we employ a twofold strategy:

1. **Reduce packaging:** We aim to eliminate unnecessary packaging, in particular plastic packaging, and to implement solutions allowing us to reduce the amount of materials used.
2. **Improve circularity:** To prevent the depletion of finite resources, we seek to increase the recyclability of our packaging and to reduce the use of materials made from non-renewable sources, in particular aluminum and non-recyclable plastics.

Fundamental to our efforts is integrating circularity considerations into the sourcing of renewable materials, minimizing packaging, and reducing end-of-life implications. In the design stage, for instance, we prioritize the use of recyclable mono-materials and the reduction of the void inside the packaging to optimize transportation, both of which reduce the product's carbon footprint. To ensure circularity, the packaging should be easily recycled by consumers. This requires that a recycling infrastructure be available for the materials selected in markets across the globe.

Our teams in the Consumer, Product, and Procurement departments work together to promote the various elements of circular packaging design.

Reduce packaging

Our first ambition is to decrease the volume of materials used in our packaging.

We focus first on board, the primary material used in our packaging. In 2021, we estimate that over 70 percent of the volume of board and paper we sourced for our packaging came from suppliers with Chain of Custody (CoC) certified according to the Forest Stewardship Council (FSC), Programme for the Endorsement of Forest Certification (PEFC), or Sustainable Forest Initiative (SFI) standards.

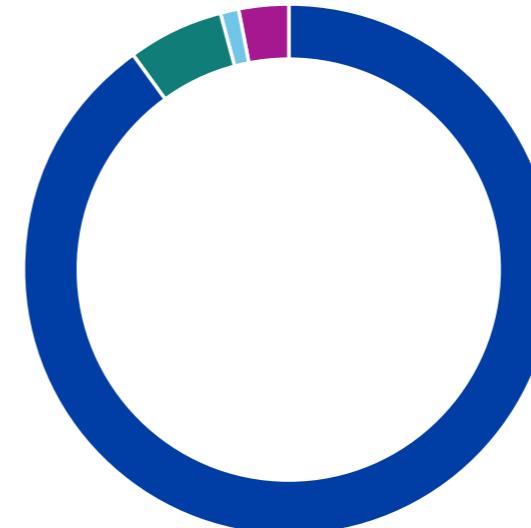
Working with our major suppliers, we continued to roll out the replacement of the packaging board used in our HTU and cigarette packaging with a 10 percent lighter alternative. By the end of 2021, we completed some of the projects within our board weight reduction program, enabling us to save an estimated 8,500 tons of board without compromising pack quality.

Meanwhile, we achieved significant progress in the packaging used for our smoke-free devices and accessories. In 2021, we launched a new IQOS ILUMA packaging without any plastic shrink film or plastic window, leading to a 9 ton reduction in plastics used. Packaging materials efficiency was also improved, with new packaging formats being 40 percent lighter and 20 percent smaller, representing 43 tons of fiber-based packaging reduction while keeping equivalent product protection. Those improvements have significantly reduced packaging carbon emissions for IQOS ILUMA.

We also worked to facilitate the proper disposal of packaging by consumers. For instance, we have stopped using magnets in our device boxes and are taking steps to replace plastic laminated board to achieve complete recyclability of our devices and accessories packaging in the paper stream.

Overall, between 2018 and 2021, we reduced our total packaging materials weight by 8 percent and are on track to meet our 15 percent reduction target by 2025.

Use of materials in our packaging in 2021



Paper and board Packs and bundles, inner liners, and shipping cases	385,167 tons	90%
Plastic Overwrap of packs and bundles, pouches, seal inner liners, and labels	27,793 tons	6%
Aluminum Inner liners (including seal) and other tobacco packaging	2,444 tons	1%
Other Inks and composite materials used in other tobacco product packaging	12,193 tons	3%

¹ For all markets where such a change is possible according to local regulatory compliance.



Improve circularity

Acting on our commitment to eliminate non-recyclable materials and increase renewable material use to 95 percent by 2025, we set up a program to replace aluminum inner liners with paper versions. We also are consumer-testing alternatives to plastic packaging.

Eliminating aluminum

Our combustible cigarettes and HTUs are encased in an inner liner inside the pack.

More than 85 percent of the inner liners in our packaging are recyclable in the paper stream (2020: 74 percent), and we are committed to eliminating the use of non-recyclable aluminum foil in all markets in which that is permitted by the end of 2022.

In a few markets, we will have to continue using non-recyclable aluminum inner liners to comply with local regulatory requirements. To mitigate the environmental and social impact, we seek to source certified aluminum from our tier 1 suppliers. In 2021, 89 percent of the aluminum used in our packaging was Aluminum Stewardship Initiative (ASI) certified, either under the Performance Standard or the Chain of Custody.

Substituting non-recyclable plastic packaging

Currently, the plastic wrap around our packs of consumables and secondary cardboard packaging is recyclable but is not made from renewable sources.

We are exploring the use of renewable alternatives to plastic. We have received positive feedback from consumer panels and plan to pilot a new packaging solution in one or more selected markets in 2022.



Looking ahead

“

Leveraging the learnings of the pilot programs we launched in 2021, we will expand our responsible post-consumer waste management programs for smoke-free consumables to the global level. We will continue to combat littering and work to develop products that further integrate eco-design principles, driving significant waste reduction and addressing the issue at the source.

We will also take steps to commercialize second-life devices on a larger scale. First, we plan to expand the collection of used devices and further test first-level triage processes (e.g., at our IQOS stores) while improving the recovery process and our repair and refresh capabilities. As these capabilities will strengthen over time and new product generations will be more repairable by design, we expect an increasing number of devices to be sorted for recovery and second life.

Stefano Volpetti, President, Smoke-Free Products Category & Chief Consumer Officer



”

In 2022, we will continue deploying and expanding cigarette butt anti-littering programs across the countries in which we operate, in coordination with key stakeholders and partners.

We will intensify our efforts to research and apply effective solutions to increase awareness of the littering issue among adult smokers, and we will continue to use our brands as carriers of those messages when possible.

”

We will continue to systematically implement our sustainable design principles throughout our product development. Research will continue to identify technologies and materials that could enhance the overall sustainability of our smoke-free product portfolio.

As we continue to refine our products, we expect iterations at the design stage to leverage our eco-design principles and further support our second-life program ambitions. Meanwhile, we will continue to rollout our CIRCLE program across the markets in which we commercialize our smoke-free products, amplifying our reach while maintaining high recycling rates.

As we move along in our eco-design certification ambition, we are engaging with eco-labeling organizations to support product category definitions for electronics and translate the insights into our product development process.

Bin Li, Chief Product Officer



”

Meanwhile, we remain committed to investing in R&D to find solutions that can successfully help us remove plastic from our combustible products, by exploring and assessing alternative filtering materials that can completely replace cellulose acetate.

Werner Barth, President, Combustibles Category & Global Combustibles Marketing

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OPERATIONAL IMPACT

- Foster an empowered and inclusive workplace **120**
- Improve the quality of life of people in our supply chain **144**
- Tackle climate change **162**
- Preserve nature **178**



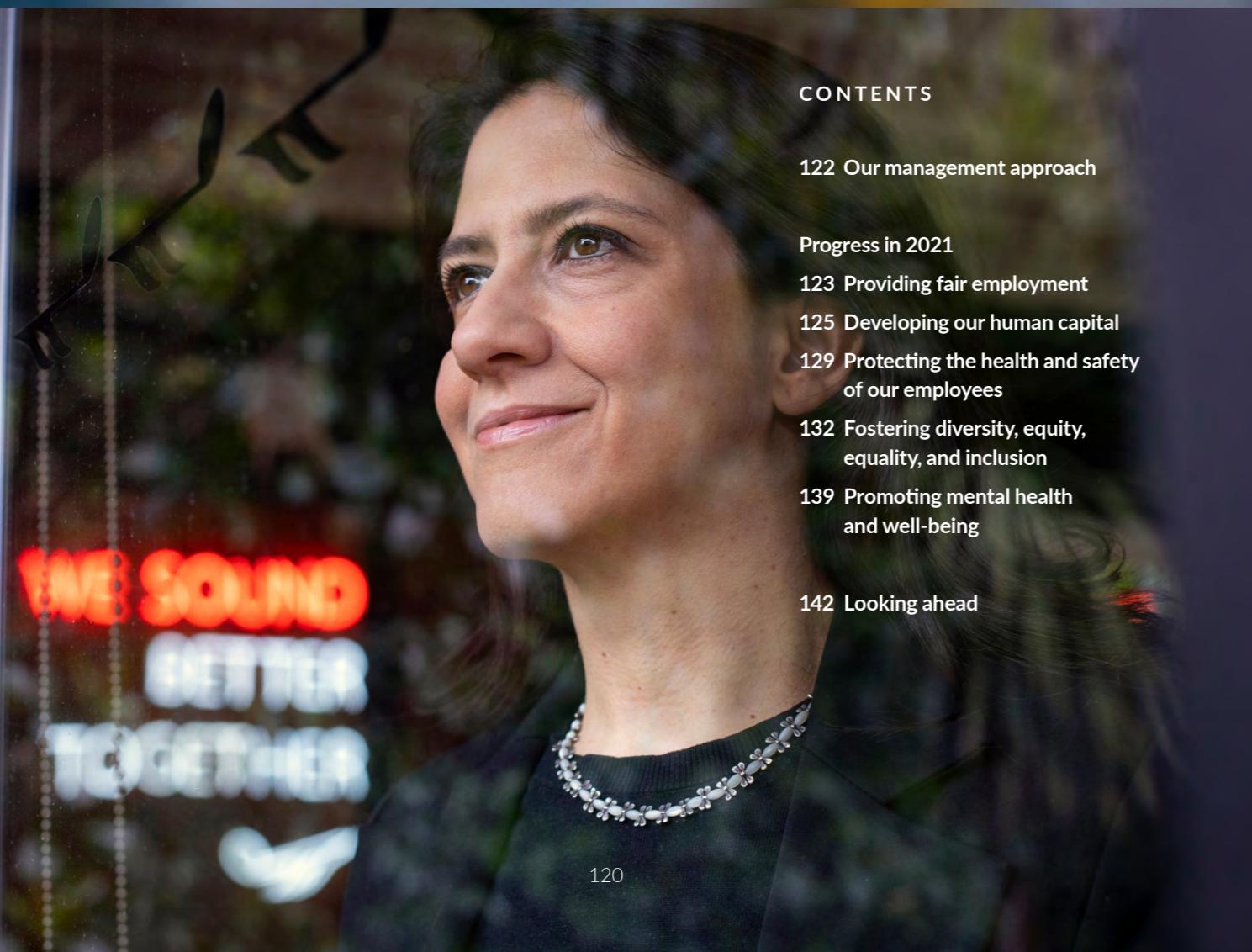
OPERATIONAL IMPACT

Foster an empowered and inclusive workplace

Our employees are drivers of innovation and the ambassadors of our purpose. We aspire to provide meaningful and fair employment, opportunities to grow, and a workplace that champions well-being and inclusion.

CONTENTS

- 122 Our management approach
- Progress in 2021
- 123 Providing fair employment
- 125 Developing our human capital
- 129 Protecting the health and safety of our employees
- 132 Fostering diversity, equity, equality, and inclusion
- 139 Promoting mental health and well-being
- 142 Looking ahead

**The right thing to do**

Equitable and fair conditions of employment are crucial for societal harmony and well-being and are central to a sustainable and prosperous future for all. Effective talent attraction, development, and retention ensure employees can pursue professional opportunities and contribute meaningfully to society.

By protecting and promoting equality, diversity, equity, and fair treatment—human rights that are essential to unlocking social and economic development—we seek to instill in our workers a sense of belonging and maintain an inclusive workplace culture. Moreover, by ensuring that all people who work with us enjoy a safe and healthy work environment and by attending to their physical and mental well-being, we can positively impact their lives beyond their time spent at work.

The business case

Our long-term business success relies on human capital in the form of the dedication, talent, and passion of our employees. It is essential for us to provide a fair and inclusive workplace that upholds good working conditions and labor rights, protects the health and safety of employees, promotes their well-being, and offers opportunities to grow and improve their employability.

Investing in our people and providing meaningful employment helps us to recruit and retain talented individuals, achieve high productivity and efficient operations in a context of rapid change, and deliver on our company's purpose. Furthermore, we regard diversity as one of our greatest assets. We strongly believe that a more diverse and inclusive culture better attracts talent and improves decision-making, innovation, customer orientation, and employee satisfaction.

OUR ASPIRATIONS

(SI) Sustainability Index

Maintain	100% of employees earning at least a living wage	<0.65 collision rate in our fleet	<0.3 integrated Total Recordable Incident Rate (iTRIR) for PMI employees, contracted employees, and contractors (per 200,000 hours worked)
2022	≥30 employee Net Promoter Score	Global EQUAL-SALARY certification	
2023	40% of management positions held by women	100% of PMI employees covered by new parental leave principles	
2025	32% of senior roles held by women	70% (SI) of PMI employees with access to structured lifelong learning offers	>70% perception of psychological well-being among our employees
	35% (SI) of senior roles held by women	≤60% representation of any one gender in management positions	≥20% representation of Asian talent in senior roles globally

Our management approach

Our ambition is to be an employer of choice, fostering an inclusive culture wherever we operate in the world. This means ensuring that our employees experience fair working conditions, opportunities to develop skills and boost their employability, and a workplace that protects and promotes their health, safety, and well-being.

Our [Guidebook for Success](#) and its accompanying set of internal Principles and Practices guide the work of our teams globally. These commitments and policies are complemented by various internal guidelines, standards, and toolkits. These include our Workplace Integrity policy, which aligns with our [Commitment to Human Rights](#) and relevant standards of the International Labour Organization (ILO), and our Health, Safety, and Security policy, as well as our general commitment to promote and protect human rights in accordance with the United Nations Guiding Principles on Business and Human Rights (UNGPs).

Dedicated teams within our People & Culture function—headed by our Senior Vice President, People & Culture, a member of our Company Management—lead efforts on labor relations, talent attraction and retention, learning and development, performance management, and compensation. Our Chief Diversity Officer oversees the development and deployment of strategies to foster diversity, improve inclusion, and promote well-being in the workplace. Our Senior Vice President, Operations oversees the company's strategy and performance on health and safety across our manufacturing sites, fleet, and offices.

We develop and deploy specific programs accompanied by tailored commitments and targets that allow us to track progress and adjust our actions as needed.

We use training and communications to help employees understand the standards and processes relevant to their roles and how to apply them in their daily work. We use multiple formats and languages to optimize our reach across the organization.

Employees can speak up about employment-related concerns, ask questions, and recommend improvements to their supervisors, P&C teams, our Ethics & Compliance function, or through our helpline. Read more [here](#).

Workplace integrity principles at PMI

We strive to maintain an environment that is inclusive, safe, and professional. We promote diversity, equality, and equity in our organization, ensuring that all employment-related decisions are merit-based. We do not tolerate harassment, discrimination, abuse or misuse of company assets or resources, violence, or the misuse of alcohol or drugs. We do not engage in or condone child labor, forced labor, or other labor abuses. We encourage effective engagement and dialogue with employees and their representatives.



Progress in 2021

Providing fair employment

All employees, irrespective of role, location, type of employment, or length of service, have the right to work under fair and just conditions. Treating people with respect and dignity is central to the fundamental principles that guide our business conduct and unite us as a company.

Maintaining sound labor relations

Labor rights are an integral part of human rights. We are determined to uphold high diligence in recognizing employee rights, fostering stable and collaborative labor relations practices, and observing high standards of employment. Constructive engagement with employee representatives serves as a bedrock of effective labor relations.

We ensure our employees are informed of their rights by their local People & Culture teams, our Guidebook for Success, and related principles and practices—including our Workplace Integrity policy—and collective labor agreements.

We are committed to respecting the rights of employees to form or join trade unions and other employee representative organizations of their choice. Collective labor agreements govern many of our employees' terms and conditions at work and may include arrangements pertaining to working hours, occupational health and safety, holidays, wages, and procedures for dispute resolution. In 2021, we had 77 collective labor agreements in 34 countries, covering 61 percent of our employees (2020: 79, 34, 62 percent).

As a global company, we consider it our duty to ensure that our entire workforce, regardless of local or national standards, is treated fairly, respectfully, and in line with our standards. We operate in multiple countries with widely varying legal employment standards. In those countries where the right to freedom of association is restricted, we strive to work with employees' consultative committees and other suitable mechanisms of representation.

We value dialogue with employee representatives (e.g., trade unions and works councils) and regularly engage with them and learn from best practices.

This dialogue occurs at local, regional (e.g., European Works Council), and global (e.g., the IUF – International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tourism, Tobacco and Allied Workers' Associations) levels.

Labor relations in times of business transformation

In 2021, we continued the organizational restructuring of our Operations Center in Switzerland to bolster our company's transformation. Following 2019 and 2020 developments, four additional central functions, as well as Duty Free, underwent a full reorganization—including a consultation process. Over the past two years, 354 Swiss-based employees have been dismissed due to restructuring while more than 150 employees have been redeployed internally. Moreover, 282 employees decided to opt for the voluntary program offered in the context of the Swiss reorganization.

Organizational restructuring is a delicate phase in a company's life, as it affects people, processes, systems, technologies, business areas, and functions. When facing restructuring initiatives in such a challenging, complex, and ever-changing environment, putting people first is our priority. In October 2021, following an extensive assessment, a decision was made to cease production at one of our cigarette factories in Russia, PM Kuban factory, as of February 2022. Regrettably, 244 employees (out of more than 3,200 people employed in our Russian affiliate) were impacted; we were able to reemploy 98 of them at our other Russian production facility in Izhora and other affiliates. All impacted employees received financial assistance, support from employment experts, and training opportunities.

Providing fair compensation

We are committed to upholding and promoting a fair and just workplace, rewarding employees based on their performance.

Rewarding employees

Our employee-centered approach to benefits aims to foster a high-performance culture.

Our employees are individuals with varying motivations, values, skills, experience, and aspirations—each of which can change over time—and this shapes our reward offerings. Our suite of compensation, recognition, and benefits programs, platforms, and policies differs by location, taking into account local regulations, agreements, needs, and preferences. However, there are some global elements, such as our Employee Assistance Program, and most programs incorporate bonus plans, life insurance, long-term sickness plans, retirement-related arrangements, and paid leave programs.

We regularly review our offerings to ensure they continue to meet the evolving needs of our workforce. For instance, PMI's Smart Work policy—which we began rolling out in 2021—offers greater flexibility and hybrid work options.

Upholding a living wage

We are committed to ensuring that all employees across the geographies in which we operate earn at least a living wage. Paying at or above living wage benefits employees, families, communities, and our business. It fosters talent attraction, retention, and productivity while securing our social license to operate.

A living wage, distinct from a minimum wage, provides an employee with the means to enjoy a decent standard of living, including the ability to buy goods and services and accumulate savings. A living wage takes local living standards into account.

We have worked with Business for Social Responsibility (BSR), a leading sustainability consultancy, since 2018 to assess living wages globally. In 2021, we undertook a global survey and analysis, which confirmed that we continue to pay at or above the living wage level for our employees everywhere we do business. This assessment covered all our employees worldwide.

We plan to conduct a living wage assessment at least every two years and initiate actions as necessary to ensure we continue to meet our global living wage commitment to our employees.

Equal pay for equal work

At PMI, we understand equal pay for equal work as the baseline standard for gender equality, and we have committed to regularly assess and certify that our pay practices match our good intentions.

In 2019, we became the first company to earn global certification from the nonprofit EQUAL-SALARY Foundation following an intensive quantitative and qualitative review of our pay and related practices. This independent certification verifies that PMI pays men and women equally for equal work everywhere the company operates. The original certification was valid until April 2022 and we are proud to confirm the re-certification, valid until March 2025.

As part of the process, we conducted a quantitative compensation assessment in 2021 that confirmed that men and women are paid equally for equal work. Moreover, auditors from PricewaterhouseCoopers validated additional qualitative aspects regarding equality such as the commitment of top management to gender equality and equal pay, the objectivity of our P&C pay policies and practices, transparent communication, and employee perceptions on these matters.

Equal pay for equal work is a first step in recognizing the value of women's work and their contributions to society. With this foundation in place, we are now working to close our broader gender pay gap (the average pay for women versus the average pay for men), including by achieving a better gender balance at senior levels of the company (learn more [here](#)).

Developing our human capital

Human capital encompasses, among other things, employee knowledge, skills, know-how, good health, well-being, training and education. Attracting, retaining, and developing employees is increasingly important in a time of demographic shifts, disruptions in the world of work, and business transformation. We provide employees opportunities to learn, develop, and contribute towards our ambitious purpose while at the same time adapting to employees' evolving needs and expectations.

Managing the employee journey

PMI's vision of a smoke-free future helps to attract and retain talent. The opportunity to contribute to achieving the company's purpose is compelling to many, as is the chance to make a positive societal impact.

Recruiting and retaining talent

Our overall employee turnover rate increased from 9.7 percent in 2020 to 12.0 percent in 2021.¹ After a year marked by the COVID-19 outbreak in 2020, the increase in 2021 reflects our continued business transformation, as well as broader shifts in workforce trends and preferences.

In 2021, we hired close to 8,400 employees worldwide and filled almost one out of five open positions with internal candidates. Our internal careers market provides current employees with transparency and easy access to opportunities. It helps us to mobilize our diverse talents across the organization and support the career growth and satisfaction of our employees.

Achieving a high retention rate starts with effective onboarding processes for new employees. In 2021, we continued to improve these processes and our employee induction program, which includes training related to the business, how we create value, our products, and our approach to sustainable development.

We leverage a holistic approach to employee listening to capture the needs and expectations of our workforce during different moments in their career, such as onboarding, a change of position, or a promotion. This helps us develop focused interventions.

For instance, in 2021, we developed a playbook to guide managers throughout their journey, from hiring to managing growth and development, supporting their teams, resolving issues, and recognizing superior performance. Equipping supervisors with such knowledge and tools is essential to providing meaningful employee experiences, fostering engagement, and boosting PMI's attractiveness as an employer.

Anticipating the needs of tomorrow

As PMI evolves and progresses towards its purpose, understanding and sourcing critical, strategic, future-fit skills is essential. Strategic workforce planning enables us to proactively manage and deploy talent, address potential risks, and capitalize on opportunities to better manage talents in the longer term.

In 2021, we took steps to enhance our shorter-term operational workforce planning. We piloted an internal online platform that allows employees to join projects based on their skills, interests, and availability. We want to help employees grow by applying their skills or learning new ones in contexts different from their day-to-day jobs. The platform was made available to around 1,200 employees in our Commercial function across 35 markets in 2021.



Performance and career development

Performance and career development reviews support the personal growth of employees and contribute to skills management and the development of human capital within PMI.

¹ In 2021, we updated our methodology to expand scope and cover employees on long-term leave (over 30 calendar days); we have restated historical data accordingly.



Following pilots in 2020, we expanded our new performance management program in 2021 to cover all managerial positions worldwide (representing more than 11,000 people), as well as around 2,000 additional employees in non-managerial positions. This new program is aligned with our quickly evolving environment and ways of working—particularly as we increasingly work in project-based, cross-functional, multidisciplinary, and virtual teams. The approach is built on three fundamental priorities: clear objectives for all employees derived from the company strategy, continuous feedback from multiple sources, and the incorporation of the “how” element in line with PMI’s leadership model. This new approach provides a more holistic picture of the value and impact each employee brings.

Employees in non-managerial positions, who were not covered with the new performance management approach in 2021, continued to undergo a performance management approach that leverages the PMI leadership model and sets out a clear methodology for objective setting.

Overall, more than 92 percent of our employees were covered by formal performance reviews in 2021.¹

In addition to the new performance management program, we improved our talent review process in 2021 to ensure employees’ careers and development are discussed in a structured, objective, and fair manner.

Continuous employee learning and development

We seek to provide employees access to opportunities to develop their skills and careers. Our global approach to learning takes into account what employees need and when they need it. Our learning culture aims to foster a skilled and confident workforce by giving people the tools they need to perform to the best of their abilities within their current roles and to develop their potential to be successful in future roles.

Digital learning

In 2021, with many office-based employees continuing to work remotely, whether full- or part-time, we focused on strengthening our digital learning capabilities and offerings.

¹ Based on a total of 55,276 employees maintained in PMI’s central HR system.

Our training is delivered through our global e-learning platform, FUSE. By the end of 2021, around 75 percent of our workforce had access to and were actively engaged on the platform. Digital training programs available on FUSE range from foundational knowledge of our products, science, and transformation to effective leadership, well-being management, and IT and digital capability development.

Our Global Learning Network, made up of close to 800 employee volunteers representing a broad range of countries, functions, and seniority levels, plays a vital role in informing the design and delivery of our learning products. Working closely with these team members allows us to stay learner-focused in our approach and truly understand what our employees need and value.

Targeted programs

We also create targeted programs to help employees acquire and develop the skills that will allow us to meet our strategic targets. Every PMI employee owns their development, and we know that not everyone learns in the same way or at the same pace. Consequently, our portfolio of learning products is flexible, incorporating online self-paced resources, virtual classrooms, and in-person sessions.

Some of the new learning solutions we provided to our people in 2021 include:

- **Consumer centricity:** PMI’s first global learning game, Bee Wow, is a custom, data-driven training solution focused on building consumer-centric behaviors, knowledge, and skills. Since its global launch in October 2021, more than 1,500 employees have completed the game, gaining knowledge and confidence in the training subjects and implementing this learning into their day-to-day work. The program continues to achieve results and receive external recognition, including a silver medal for “Best Use of Games or Simulations” at the 2021 Brandon Hall Group Excellence Awards in Learning. Both employee and managerial feedback demonstrate that the training tool is effective, efficient, and well-received.

- **Leadership development:** At PMI, every employee is considered a leader, and it is vital that we provide the necessary support to enable everyone to grow, develop, and contribute to the success of the company. We have invested in leadership development offerings over the past several years and have put in place solutions covering critical areas such as leading change, first-level management skills, and resilience.

We also launched two new global pathways for key talent groups:

- **Women empowerment:** The first program, developed with our Inclusion & Diversity team, was for high-potential female employees. This initiative recognized that women often operate within systems built on masculine norms—systems that are still adapting to be fully inclusive. With a focus on personal growth and development, the initiative was designed to provide participants strategies and tactics with which to navigate common barriers, create a sense of community and belonging, and focus on what is truly important to them in their lives and careers. More than 50 senior female leaders participated in the six-month program, which incorporated virtual classrooms, one-to-one sessions with an external coach, and group activities.

- **Leadership succession:** The second program was designed to help us build a succession pipeline for our Company Management. Participants in the nine-month program first established individual development plans. Through trainings by external partners such as INSEAD and Duke Corporate Education, as well as individual and group coaching, the program helped participants bolster the critical business and leadership capabilities they will need to be ready to step into a senior management role when the right position is identified for them. In addition to the core elements offered by our external partners, participants were able to select from a number of elective elements targeting their areas of expertise and interest.

Improving equity: providing access to opportunities that boost employability

PMI is changing, and so is the world of work. New technologies are disrupting the business environment, driving a need for new skills and capabilities. Continuous upskilling and reskilling is essential to ensure employees thrive and, as a result, improve the company’s performance. We seek to empower our employees to take ownership of their career development by focusing on equity, granting access, and democratizing training by offering a range of voluntary learning opportunities.

For example, our digital language learning program is available to all employees worldwide. As of the end of 2021, 3,561 employees were actively learning or perfecting a new language, and the company experienced a significant uplift in language proficiency.

Meanwhile, our Operations function continued to expand its voluntary lifelong learning program. Designed to improve equity, be inclusive, and enable growth, the program empowers employees to choose the skills they want to learn to shape their careers in the direction of their choice. There are no prerequisites for signing up for a course, and PMI offers bridge courses so employees at all levels can enter the program where they fit and progress toward higher levels and certifications. The online certification programs vary in length and difficulty, ranging from a few hours up to 18 months, with some counting toward a master’s or other advanced degree at a designated partner university.

In 2021, we rolled out access to all employees in our Operations function (totaling around 21,000 people), as well as to specific additional functions and geographies. By year-end, the program counted around 3,000 active learners across 50 countries, who logged an estimated 38,000 training hours during 2021 and obtained 1,680 academic certifications.

More broadly, in 2021, we started identifying and mapping potential training and education areas in which to invest to meet the emerging demands of our company and the job market. We will fine-tune and expand this preliminary work in 2022, laying the groundwork for a more holistic approach to lifelong learning. This will guide our progress toward our newly introduced aspiration to provide 70 percent of our employees with structured lifelong learning offers by 2025.

Listening to our employees

Listening to our employees is an essential part of our strategy and key to achieve our purpose. We conduct an extended company-wide employee survey annually, which we complement with regular pulse checks throughout the year.

The results of our annual survey in 2021—to which 44,089 employees responded—showed an overall improvement compared with 2020. With an employee Net Promoter Score (eNPS) of 35, we achieved for the second consecutive year our target of maintaining a minimum eNPS of 30, and we are 10 points above the global benchmark provided by our external partner Karian and Box.



The results underscore that employees feel highly confident in the success of PMI's transformation and inspired by the company's purpose. Compared with 2020, the survey data showed strong improvement in collaboration between markets and functions, and in line managers asking for feedback.

Areas on which we need to focus further are employee reward and recognition, as well as career opportunities. Moreover, while on a positive trend, our employee well-being rating—collected as part of a separate survey—shed light on the need to promote and protect our employees' mental health and well-being (read more [here](#)).

We examine our engagement scores through a range of filters, including function, location, tenure, age, gender, grade, and working arrangements during COVID-19. This segmentation helps us to shape action plans more precisely. When we analyze results by gender, for instance, we see the engagement results improved compared with the previous year for both women (31 to 32 points) and men (33 to 36 points), but the gap between the genders has increased.

As with previous surveys, we will use the 2021 results to deliver concrete improvements across the company, which we will disclose in our next report.

Manufacturing of the future

To thrive over the long term, we have embarked on a journey toward "manufacturing of the future." Our North Star: an agile, smart factory with an end-to-end operations ecosystem, advanced digital technology, upskilled teams, and best-in-class safety, quality, and sustainability performances. We have set this vision and defined steps across all our manufacturing sites to guide our progress. People capability development provides the foundation for this journey. We want to support our factory workers in shifting from reactive tasks to proactive interventions by increasing their skill levels and supporting them with effective technology. Along the way, we are deploying extensive learning opportunities (with both internal and external certifications) to help ensure our people are future-fit and highly employable.

Although we anticipate that this journey typically will take six or seven years to achieve, the pace is specific to each manufacturing site and guided by the pillars of our Open+ program, our lean methodology aimed at eliminating losses and building the necessary capabilities to deliver sustainable results.

Protecting the health and safety of our employees

Keeping people safe is a moral and business imperative. We are committed to providing a safe and healthy workplace that promotes a culture of empowerment.

We have embedded clear methodologies, procedures, and robust controls in our factories, offices, and fleet aimed at ensuring that our employees and others on-site stay safe. The health and safety of employees and contractors is covered by our management systems, which are based on recognized guidelines and standards, including ISO 45001, and assessed and audited internally and externally. These systems enable us to monitor health and safety performance across all our manufacturing facilities, offices, and in our fleet. We routinely update our standards and train our staff to ensure teams understand and align with the requirements.

Maintaining our safety-first position in the era of COVID-19

We have long prioritized safety to protect our employees, contracted employees, and contractors in our premises. In response to the continued COVID-19 pandemic, we maintained, reinforced, or adjusted various protective measures across our sites and activities throughout 2021.

As the pandemic evolved throughout the year in different geographies, our recovery plan focused on mitigating and managing risk. We took a conservative and precautionary stance, with clear criteria to help our business units in different parts of the world identify when to take steps toward a gradual return to the workplace, as well as when to reimplement restrictive measures, as warranted.

Promoting employee volunteering

PMI has a long-standing commitment to support the communities where our employees live and work and where we source tobacco. This support is provided in the form of monetary contributions and in-kind donations (see the list of our 2021 social contributions [here](#)), as well as volunteer work by our employees. Beyond supporting local communities, volunteering can motivate and enrich the lives of our employees, help them develop new skills, and enhance their perception of PMI as a great place to work.

At the end of 2020, we established global guidelines to further encourage those who would like to contribute their time, energy, and efforts to improving life in their communities. Every PMI employee is eligible to take two days per year of paid leave for volunteering activities. Moreover, the company commits to match—with up to five additional paid leave days—any additional volunteer work employees choose to do on their own time.

This is in addition to the existing customary practice of giving employees paid leave for participating in initiatives organized by the company during traditional work hours.

In 2021, amid the COVID-19 pandemic, we piloted the guidelines without broadly promoting them, and only a limited number of employees took part in the program. In 2022, we plan to significantly increase awareness of the program among employees to empower them and assimilate volunteer work as a regular practice.

Our efforts to promote volunteer work are complemented by our employee-driven philanthropy "[Projects with a Heart](#)." It is a global grassroots movement established and run by employees and endorsed by PMI. The internal platform connects would-be volunteers with people in need.

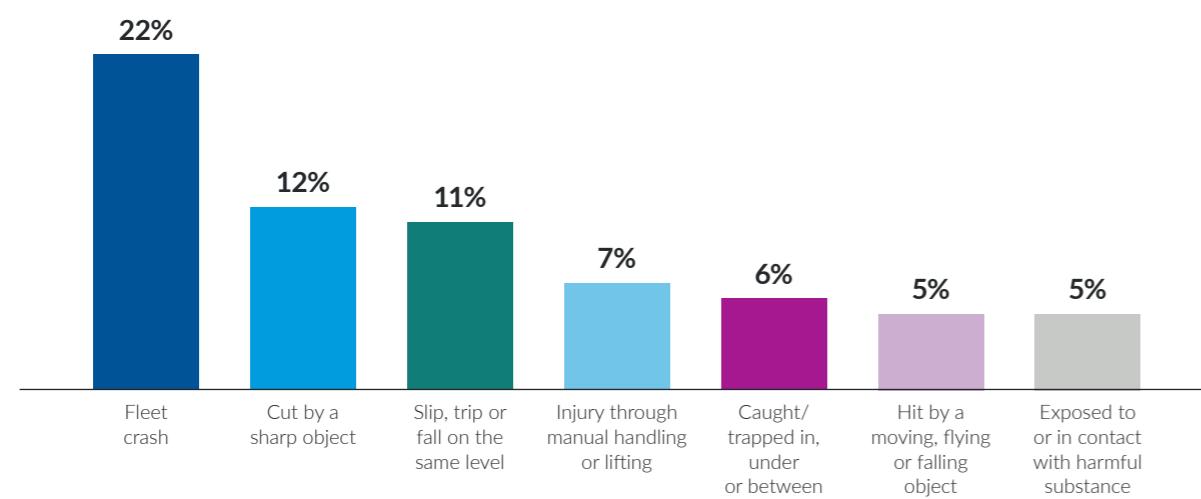
Health and safety performance in 2021

Our health and safety performance monitoring covers PMI employees, contracted workers who are under the direct supervision of PMI but employed by a temporary employment agency (we had around 7,000 contracted employees on average per month in 2021), and contractors when on PMI premises. Contractors are workers who are employed by or work on behalf of a third-party company contracted by PMI but who remain under the direct supervision of their employer. Typically, such workers are involved in specific projects (e.g., machine installation or construction), facility management (e.g., building maintenance), logistics (e.g., transportation or administration), or services (e.g., canteens or medical centers on PMI premises).

In 2021, across our factories, offices, warehouses, and fleet, our integrated total recordable incidents rate (iTRIR) was 0.09 (2020: 0.12), which breaks down into 0.09 (2020: 0.11) for employees and contracted employees and 0.10 (2020: 0.16) for contractors. We are proud of the progress made to date and remain committed to maintaining an iTRIR below 0.30 in a sustainable manner.

During the year, our lost time incident rate (LTIR) for employees, contracted employees, and contractors was 0.05 (2020: 0.08). More specifically, it was 0.06 (2020: 0.07) for employees and contracted employees and 0.05 (2020: 0.12) for contractors. We do not set targets on lost time incidents as we wish to handle every incident with the same level of importance, quality of analysis, and mitigating action regardless of whether the incidents result in lost time.

Top direct causes of injury in 2021



Manufacturing

Health and safety in our factories is coordinated centrally by our Global Manufacturing team. At site level, each facility has a dedicated team that ensures standards are met on the ground.

External certification helps us continuously improve and drive efficiency. In 2021, all our factories producing the equivalent of more than three billion cigarettes annually achieved certification to ISO 45001. The global multisite certification process included third-party audits of a sample of our sites, which determined that best practices are embedded across all our factories.

We conduct risk assessments to identify hazards and implement necessary controls. Our corporate targets on incidents help us evaluate the effectiveness of our safety policies and programs. In 2021, in our manufacturing facilities, our LTIR for employees and contracted employees was 0.05 (2020: 0.07), and our total recordable incident rate (TRIR) was 0.10 (2020: 0.13). Including contractors in the scope, our TRIR was also 0.10, down from 0.14 in 2020. No employee, contracted employee, or contractor fatality occurred in our factories in 2021.

All incidents in our manufacturing operations are subject to in-depth root cause analysis, and we apply the same thorough approach to all incidents involving contractors in our manufacturing facilities.

We use behavioral observation systems (BOS) in our factories to instill a culture in which everyone involves themselves in openness, care, observation, and behavior reinforcement. We advance this culture through communication with employees and safety alerts or notice boards. Every person's contribution counts—a fact we recognize through awards and other means of acknowledgment. Through BOS, we are further embedding safety into the organization's DNA in a planned, structured, and standardized way.

Embedding a safety culture

We conduct annual assessments and employee surveys to evaluate our sites' safety culture level and identify opportunities for improvement.

Every year, we invite all employees in our manufacturing sites to participate in a survey and provide feedback on a wide range of cultural and behavioral issues related to the workplace environment and health and safety. The results serve as a direct effectiveness check of measures put in place as a result of our regular culture assessments. These assessments are performed at our manufacturing sites each year by a group of factory representatives from all levels of their local organizations.

Our ambition in our factories is to create an interdependent sustainability culture in which responsibility for health and safety and the workplace environment is owned by highly skilled individuals and autonomous teams and in which sustainability is demonstrated and perceived as a core company value. The combined survey and assessment results provide our factories a detailed overview of their progress toward that goal.

Fleet

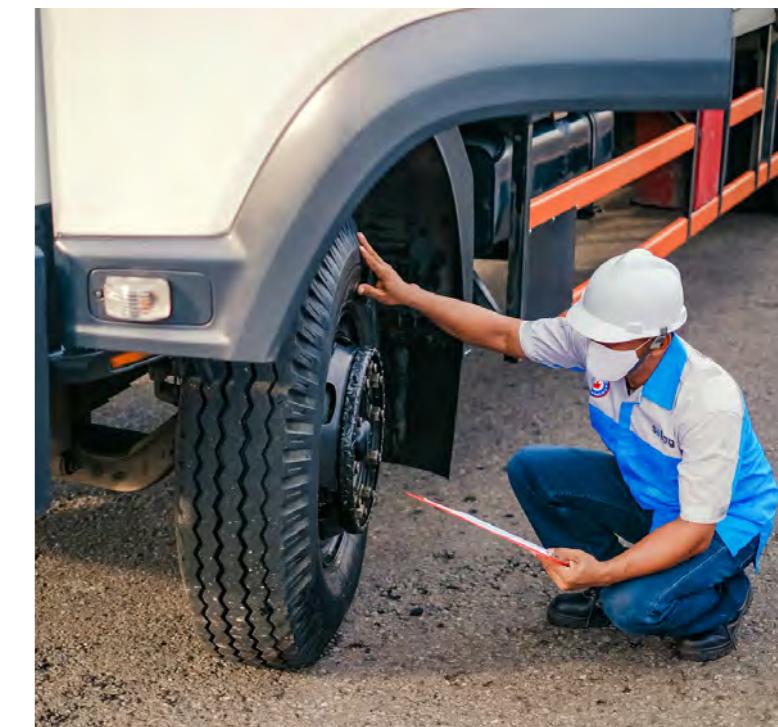
We seek to protect our employees by providing safe vehicles and driver safety awareness programs to achieve zero preventable fleet safety accidents. Our target is to reduce high-severity collisions, with an ongoing goal of eliminating fatal accidents completely.

A dedicated team—led by our Director, Security and Market Safety in coordination with local fleet safety committees—manages security and market safety. This team develops and deploys programs and training courses, fosters engagement at the country level, and uses monitoring systems and performance indicators to evaluate progress. PMI's fleet safety management system is based on recognized standards such as ISO 14001 and ISO 39001 and covers risk assessment, driver training, vehicle safety, and driver behavior.

In 2021, we reviewed our global requirements for fleet safety and issued a global policy governing the management of our fleet vehicles, along with operational guidelines. The goal of our fleet safety management program is to achieve zero preventable accidents and to protect employees and other road users, the company's assets and reputation, and the environment.

The challenges we face in delivering safe working conditions relate to road conditions, law enforcement, and driving culture. Distracted driving (e.g., using a mobile phone or eating while driving) is the leading cause of vehicle collisions (research shows that people who drive while using their phones are far more likely to be involved in a crash, and this risk multiplies for people who text while driving).

To improve driving behavior, we leverage awareness raising and connected fleet technologies. By the end of 2021, 47 percent of our working-tool cars were equipped with telematics, which provide the driver and the company with data on driving behaviors and proactively helps improve road safety, reduce fatalities and injuries, and decrease carbon emissions (read more [here](#)). We aim to have all our working-tool vehicles equipped with tools and new ways of working in the medium term.





While restrictions due to the COVID-19 pandemic prevented us from conducting standard training sessions “behind the wheel” in 2021, we launched a global fleet safety e-learning program tailored to each driver’s core competency score and driving style. By year-end, 30 percent of company drivers had commenced the program, which includes eco-driving modules, and we intend to reach a participation rate of over 85 percent in 2022. We expect all drivers at PMI to undergo the training within a three-year cycle.

Together, our standards, programs, and technology are leading to significant improvements in road safety. Between 2019 and 2021, road-related collisions resulting in employee injuries or significant vehicle damage decreased by 50 percent. In 2021, globally, the number of collisions per million kilometers driven amounted to 0.44 (2020: 0.53). We remain committed to maintaining a collision rate below 0.55. Our TRIR in our fleet also shows a positive trend, having decreased globally from 0.09 in 2020 to 0.08 in 2021.

Although we continue to reduce collisions, it is to our deep regret that we endured road traffic fatalities in 2021, involving one PMI employee and two members of the public. The accidents occurred in two countries in Asia and involved challenging circumstances related to basic motorbike defensive-driving techniques, such as traffic anticipation, maintenance of safe speeds for the road conditions, and proper use of personal protective equipment such as helmets. Lessons learned from the investigations include the necessity for motorbike-specific defensive-driving training, along with the continued deployment of our robust fleet safety management program.

Fostering diversity, equity, equality, and inclusion

People are central to PMI’s value creation model. While always valuable, varied perspectives, experiences, and problem-solving skills are especially critical in times of change. We regard our employees’ diversity as one of our greatest assets. We therefore seek to cultivate an inclusive environment where diversity can thrive and all employees feel respected, supported, and engaged. This is the only way diversity can be sustained and our employees can be able to perform at their best, contributing fully to our company’s purpose.

Enhancing diversity

At PMI, we aim to celebrate all types of diversity, both demographic (e.g., race, ethnicity, sexual orientation, gender identity, age group, as well as visible or invisible disability) and experiential (how people think, work, communicate, and live).

Advancing gender equality and empowering women

Increasing female representation

A gender gap is a talent gap. Building a gender-balanced organization, therefore, remains one of our top priorities. Globally, 42.2 percent of our employees were women in 2021, and 39.7 percent of our managerial roles were held by women.

We are confident that we will achieve our target of 40 percent of management positions held by women by the end of 2022. Beyond that, our ambition is to maintain a minimum of 40 percent female representation globally and have a maximum of 60 percent of any gender identity in management positions in most of our business functions and regions by 2025. During 2021, all business units set specific gender aspirational targets and focused their agendas on gender-balanced external recruiting and internal promotions. Our managerial new hires’ gender ratio for the year was 44.7 percent for women (an increase of 6 points versus 2020), and the proportion of promotions to management positions that went to women was 47.6 percent (2020: 45.0 percent).

To optimize our business, we believe it is critical that we improve the gender balance in decision-making roles. We are committed to having at least 32 percent of senior roles held by women by 2023 and 35 percent by 2025. In 2021, women represented 31.1 percent of senior positions (2020: 29.6 percent).

Advancing gender equality and improving equity to foster inclusion requires us to better understand and tackle structural barriers pertaining to these issues. In 2021, we piloted [Catalyst’s MARC initiative](#) (Men Advocating Real Change) in two functions, and we will make this learning experience available globally in 2022. We are committed to inspiring men to become aware of unconscious bias, understand male privilege, and leverage their power and position to advocate for tangible change that can advance equity and equality. As part of this process, we have begun communicating about the importance of allyship in the workplace through our internal social media channels, with the aim of sparking a global conversation.

We also focus our efforts on specific business functions. For example, we initiated a program to identify the causes of low female representation at different levels of the sales organization and tailor initiatives to address them.

Our Chief Diversity Officer puts special attention on hearing the voices of frontline female employees worldwide to understand whether PMI’s strategy reaches all women in the organization.

Gender breakdown at different managerial levels in 2021

Senior leaders



Directors



Managers



Non-managerial levels



31.1%
women in senior roles, on track to achieve our goals of 32% by 2023 and 35% by 2025

39.7%
management positions held by women, on track to achieve our goal of 40% by 2022

Encouraging career relaunches in Pakistan

In 2021, Philip Morris (Pakistan) Limited (PMPKL) launched MakeYourComeback, a platform for women who have taken a break from paid work and wish to relaunch their careers. Through this program, PMPKL amassed more than 400 applications from women, 10 of whom were hired for various projects based on their capabilities and experience. An extensive virtual onboarding program was put in place, including assigned "buddies" to help the new hires understand the culture and feel integrated into the PMI community.

We are gathering learnings from this experience to determine whether we will replicate the approach in other countries.

Closing the gender pay gap

Our global EQUAL-SALARY certification verifies that PMI pays men and women equally for equal work (read more [here](#)). Alongside equal pay, we are committed to fostering fairness in the workplace and closing our gender pay gap. The gender pay gap refers to the percentage difference between the average pay for men and women. PMI's global EQUAL-SALARY certification gives us confidence that unequal pay for equal work does not contribute to the gender pay gap at PMI. Rather, the gap stems from the fact that women are underrepresented in senior leadership roles. The imbalance also needs to be viewed in the context of our overall workforce demographics. In particular, of the 68,547 people we employed as of the end of 2021, over a third were in Indonesia, where our workforce is predominantly composed of thousands of people, mainly women, who hand-roll cigarettes at our manufacturing facilities.

There is no silver-bullet for closing the gender gap.

Success requires an ecosystem of interrelated actions across the entire employee life cycle: from recruitment and training to retention and promotion. Critical actions include having a commitment to gender balance led from the top, crafting personalized career and development plans for female leaders, celebrating female talent as role models, and providing female talent with opportunities to build connections and gain mentoring and sponsorship support through networking events and leadership forums.

Success also requires an environment that promotes and protects inclusion so that diversity can thrive. A company culture that celebrates, welcomes, and appreciates diversity will not only help increase and accelerate progress towards closing the gaps, but, more importantly, ensure that this success is sustained over time.

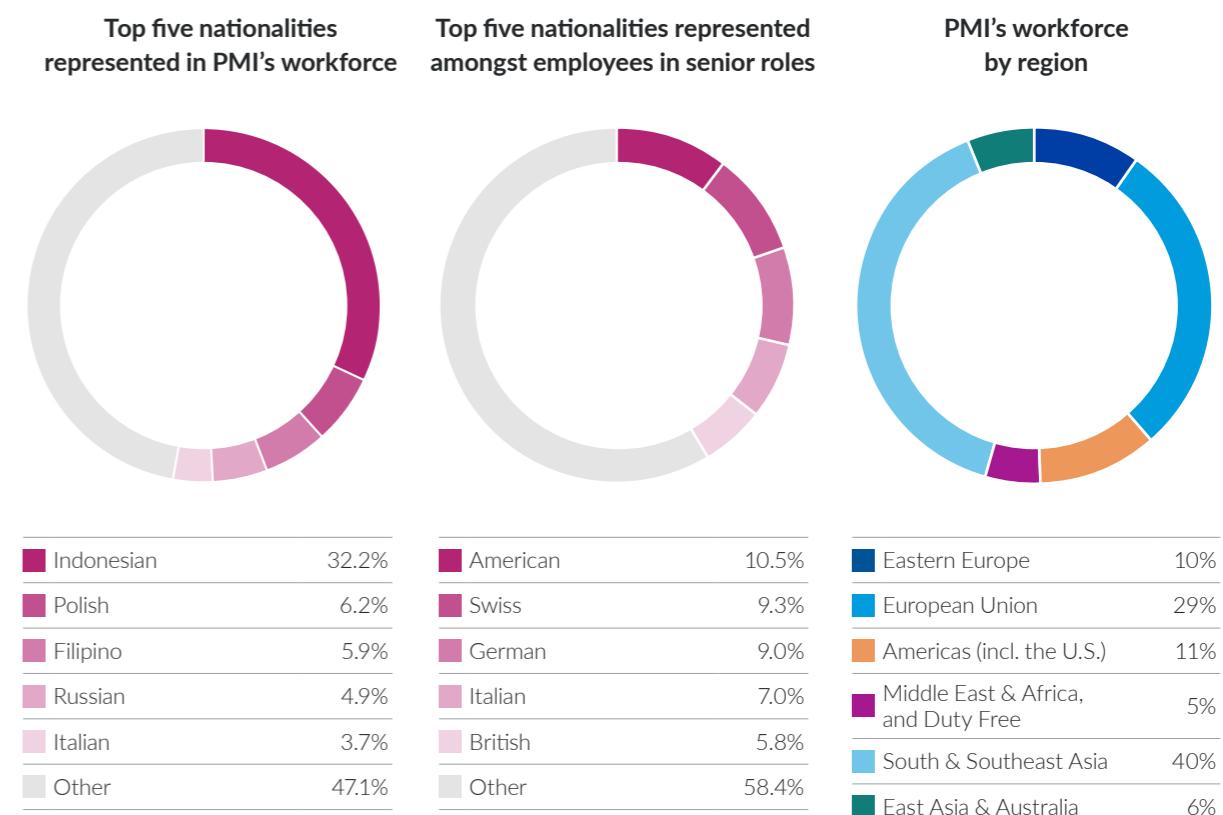
Focusing on national representation

Another priority for us is to strengthen the diversity of nationalities within our global workforce and, in particular, to grow local talent within executive management teams. Our employees represented 133 nationalities at year-end 2021, contributing to an international culture that many employees value.

Despite this international makeup, there is a need for our executive teams to better reflect PMI's geographic footprint and the diversity of its consumers. In particular, we have set a new commitment to increase to at least 20 percent Asian representation in senior roles by 2025. Asian nationals currently hold around 16 percent of PMI's senior roles. In contrast, the South and Southeast Asia (S&SA) and East Asia and Australia (EA&A) regions together represented 46 percent of our total workforce in 2021.

	2019	2020	2021
Proportion of women in the company's top pay quartile globally	32.9%	33.9%	35.1%
Proportion of women in the company's upper-middle pay quartile globally	33.5%	34.4%	35.6%
Proportion of women in the company's lower-middle pay quartile globally	20.4%	20.9%	22.4%
Proportion of women in the company's lowest pay quartile globally	79.4%	77.2%	76.2%
Company's global mean (average) raw gender pay gap¹	34.6%	33.0%	33.5%

1 The mean gender pay gap is calculated as the percentage difference between the sum of annual base salary, bonus, and stock options.



In this context, in 2021, our S&SA and EA&A regions launched a tailored program with the objective to build and accelerate the development of high potential Asian talents. A total of 64 employees in management positions participated in the first year rollout. The program follows a blended learning approach from the Duke Corporate Education faculty, external experts, and PMI leaders to sharpen the agility and management capabilities of the participants. It offers course learnings and real business challenges that will equip them with strategic and organizational skills that will be instrumental for their readiness to take on leadership roles in Asia and globally across PMI.

Furthermore, we believe it is necessary to rebalance local and foreign representation within market executive teams. While it remains important to offer employees the opportunity to relocate for their development and for talent transfers to accelerate progress in a market, we are clear that an inclusive and consumer-centric approach is paramount for our success in any given country. Accordingly, we have set a new ambition to develop local talent for leadership positions, and we aim to achieve a minimum local representation of 60 percent in at least 80 percent of our markets. In 2022, we intend to establish our baseline and design and implement a multiyear plan.



Building a culture that promotes and protects inclusion

We can put in place programs to increase diversity, but if we fail to welcome, protect, and empower diverse people and their voices to thrive, that sought after diversity will not be sustainable. Inclusion means ensuring all people feel they belong and are an integral part of our company. If diversity is marginalized, and not properly integrated, employees are not only less likely to perform at their highest level, but also unlikely to be retained. Only a truly inclusive culture can ensure we benefit fully from the value diversity can bring to our organization.

Measuring inclusion

We understand that inclusion unlocks the potential of diversity. However, unlike diversity, inclusion can be challenging to measure and to track over time.

In 2021, we sought to capture employee sentiment on inclusion, leveraging our global employee listening survey. We introduced a set of six new questions derived from research by Gartner. The responses identified the following critical dimensions of inclusion: fair treatment, integrating differences, decision-making, psychological safety, trust, belonging, and diversity. We averaged the scores attributed to those six questions to build an “inclusion index.” At 76 percent, the index showed an overall high perception of inclusion within PMI. Around half of the participants responded positively to all questions, and the experience of inclusion by women versus men did not highlight any significant discrepancy (inclusion index of 74 percent for women and 78 percent for men).

However, the exercise shed light on notable differences regarding individual questions. For instance, questions linked to “integrating differences” and “decision-making” scored high, while lower scores were accorded to questions linked to “fair treatment” and “psychological safety.” Also, the gap between women and men widened on questions related to psychological safety and fair rewards. The findings also revealed a lower experience of inclusion among those employees who identify as belonging to an underrepresented group.

This first attempt to measure inclusion helped us set a baseline of employees’ feelings and to design programs tailor-made for every function according to their results.

Following a year when inclusion and diversity efforts moved center stage amid the global pandemic, the absence of a single authoritative approach to effectively measuring inclusion in business has become even more apparent. To address the issue, on International Women’s Day (March 8, 2021), we launched Inclusive Future, a year-long research and convening project to advance the discourse and practices surrounding inclusivity. In partnership with the International Institute for Management Development (IMD) in Switzerland, we are working to devise effective and timely ways to promote inclusive cultures within organizations of all types. Inclusive Future will take stock of best practices and established thought leadership and explore how recent events and the current climate can inform the evolution of more effective approaches for driving inclusive cultures. We aim to better understand, develop, and advance the discourse surrounding inclusion today and into the future, aiming to explore more sophisticated ways to measure it going forward. Read more [here](#).

Encouraging employees to take an active role

We strongly believe that promoting inclusion is a collective responsibility and that education and awareness-raising is an essential first step.

In 2021, we continued to promote our global employee resource groups (ERG) on women, race, ethnicity, and LGBTQ+ inclusion, and we launched a new ERG focused on disability. Our employee-led groups focus on particular dimensions of diversity and are intended to provide a platform for building a sense of belonging and sparking conversations.

They organize events, provide mentoring opportunities, and host conversations in which employees are encouraged to share their diverse perspectives and experiences to better understand and support one another.

Every ERG is open to all at PMI, led by a committee of volunteers, sponsored by a member of Company Management, and supported by an external subject matter expert partnership. In 2021, around 10,000 employees participated in one or more of our ERG programs and events.

PMI’s employee resource groups:

- **STRIPES** convenes employees around gender identity and provides a formalized structure and global strategy for the local LGBTQ+ networks present in 29 markets. In 2021, we partnered with [Stonewall](#) and began reviewing together some of our internal policies to ensure they are representative and inclusive of LGBTQ+ colleagues. We also partnered with Accenture to start running an intercompany training focused on allyship.

- **EMBRACE** aims to champion racial, ethnic, and cultural equality by raising awareness and understanding of the challenges faced by underrepresented groups. In 2021, we partnered with the [Racial Justice Institute](#) to advance PMI’s efforts in this area through training, workshops, and engagement opportunities focused on racial justice, allyship, and advocacy. As of year-end, we had four local race and ethnicity ERG chapters in addition to our global ERG.

- **WIN** (Women’s Inspiration Network) seeks to provide a supportive place to inspire and empower women to advance their skills, expand their network and unlock their full potential. In 2021, WIN organized three global events with external speakers and started weekly virtual coffee corners, providing a networking opportunity to women (and men) of PMI. Currently, more than 40 markets have access to local WIN chapters.

- **ABLE**, launched in 2021, aims to foster a more inclusive and diverse organization by attracting candidates and supporting employees with different abilities. Following PMI becoming a signatory to [The Valuable 500](#) in 2020, we brought on [PurpleSpace](#) as an external adviser and collaborator for internal events.

PMI's global ERGs ran a year-end event attended by our CEO. The event provided a platform through which employees could provide feedback and input into the company's broad strategic plans and activities for the year ahead in alignment with the global inclusion and diversity (I&D) multiyear strategy.

In 2021, PMI also launched an inclusive language toolkit in collaboration with its global ERGs to provide guidance on terms and expressions to use and avoid when engaging in internal discussions.

Raising awareness and knowledge

In 2021, we broadcast our first global I&D conference. Our Chief Diversity Officer hosted two sessions, available to all employees, and introduced the global I&D multiyear strategy. Our Chief Consumer Officer explained the IQOS inclusive brand principles, and we announced the introduction of global ERGs.

As part of our ongoing effort to gather diverse input for our inclusion and diversity strategy and programs, we created an internal employee group (I&D Soundboard), which meets regularly to give input and feedback to the I&D team. We also implemented monthly global I&D Office Hours. These sessions offer a casual and safe setting in which employees worldwide can openly raise questions or topics with our Chief Diversity Officer and the global I&D team and share their thoughts with participants from different teams and business areas.

We also continued our efforts to build a culture of inclusive behaviors through our I&D learning curriculum. We support teams in addressing challenges through a set of e-learning experiences in which employees learn about the origins of bias and the various ways it shows up in organizations. Participants receive practical tools and techniques to combat prejudice and preconceived notions.



Promoting mental health and well-being

Maintaining a happy and healthy workplace is key to employee engagement, productivity, satisfaction, and retention. We understand that when people feel good, they are likely to contribute more to their families, their work, and society.

Our aspiration is to promote an environment that supports employee well-being as an enabler of professional and personal fulfillment, sustainable high performance, and business results. The extraordinary circumstances of the COVID-19 pandemic further precipitated focused attention on this area.

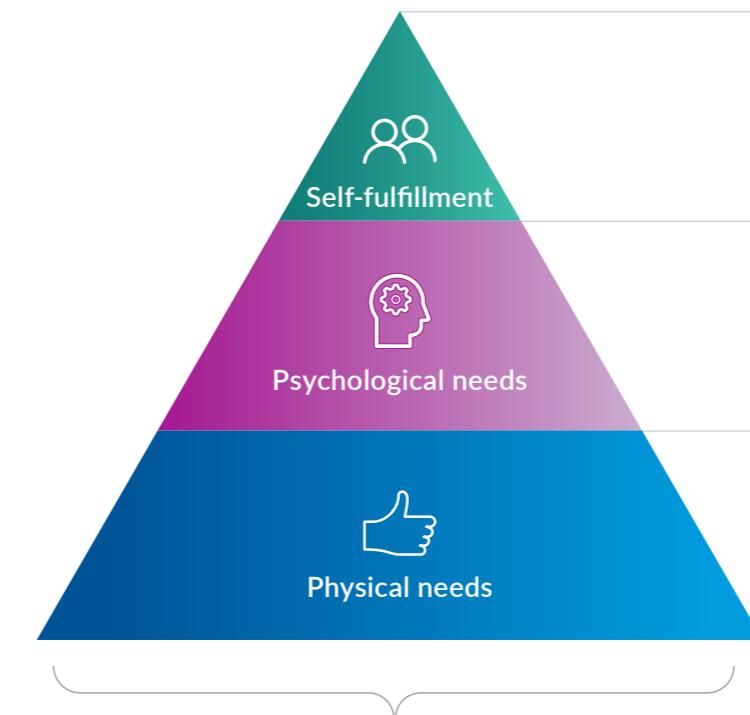
Building a holistic approach to well-being

While PMI has provided benefits centered on health and well-being for some time, these were primarily focused on reactive support or led by local market teams without a unifying global framework.

In 2021, we created a global framework and established an integrated and data-driven roadmap of priority actions to support the holistic well-being of employees across the company. Our work was supported by insights gathered through our employee listening surveys, benchmarks of best-in-class practices, and the help of external experts.

Under our holistic framework, well-being incorporates physical needs, psychological needs, and self-fulfillment. Our approach is based on the following principles:

1. People's energy is a critical enabler of performance
2. We take accountability as an organization to support employee well-being
3. We expect employees to take individual accountability for their well-being as well
4. We see well-being as a development opportunity and encourage people to look after their well-being



All underpinned by ways of working, leadership behaviors, and psychological safety

- Personal purpose and alignment with PMI's purpose
- Inclusion and sense of belonging
- Career growth and skills development
- Volunteerism opportunities

- Quality of relationships at work: Providing a work environment that promotes psychological safety, employee appreciation and recognition, and respect for personal boundaries and work-life balance
- Support: Providing appropriate proactive (e.g., education, self-help tools) and reactive (e.g. Employee Assistance Program, insurance) support to employees
- Comfortable workplace and access to facilities or tools to encourage physical fitness
- Comprehensive benefits offer to support well-being
- Policies and norms that encourage healthy behaviors and recharge energy

Measuring well-being to drive action

We know data and insights are key to introducing relevant interventions in support of employee well-being.

As part of our regular employee listening, we ask employees three times a year to answer the following question: "How would you rate your psychological or emotional well-being at present?" This is measured on a five-point scale from very bad to very good. In October 2021, 61 percent of employees responded "good" or "very good." While the score increased, we did not achieve the target we set in 2020 of 63 percent by 2021, likely because of the unexpected continuation of the pandemic. The gap of nine percentage points between men (64 percent) and women (55 percent) is substantial (and represents an increase from the gap of five percentage points recorded in October 2020) and requires further investigation. We will continue to track progress on this indicator and aim to achieve a 70 percent score by 2025.

To get deeper insights, we piloted a tailored well-being study across six of our markets (one per region) in 2021. The study methodology incorporated a survey (to which more than 3,600 office-based employees responded) and analytics aggregating information on the use of computer-based tools by employees (data were drawn from those employees who agreed to share such information on a confidential basis). This two-pronged approach allowed us to analyze the root causes of well-being, ranging from our ways of working and relationships with managers to presenteeism and employees' sense of belonging.

Leveraging the insights gathered, we aim to develop a well-being performance indicator that will allow us to measure holistic wellness, monitor progress, and identify appropriate interventions.

A global focus on mental health

Mental health is critical to employee well-being. Worryingly, issues of mental health are a growing problem globally, affecting nearly 10 percent of the world's population and causing devastating impacts for the individuals directly affected and those close to them.¹ There is also a business impact: Depression alone is estimated to cause USD 1 trillion in lost productivity every year.²

We believe it is crucial to raise awareness and encourage conversations around mental health to equip employees to support themselves and others and also to remove the stigma around the issue. In May 2021, we organized a Mental Health Conference, which attracted a broad global audience and received positive feedback from our employees. Following this event, we organized a Mental Health Week in October, inviting PMI employees to share their stories and hosting talks with internal and external experts on topics ranging from how to spot and prevent burnout to the power of listening and recognition. Encouragingly, we saw positive dynamics in how employees feel about PMI's concern for their mental health and their awareness of where to go for help. Surveys of participants conducted in May and October showed a significant improvement in responses to the questions "How reassured do you feel about PMI's concern for your mental health?" and "How familiar are you with support available for you at PMI for mental health & well-being?"

We have also convened a Well-being Advisory Group, a diverse body that includes senior leaders and well-being advocates from various functions and regions. This group informed the development of the well-being framework and the roadmap of initiatives for 2022 and beyond. It will continue to serve as a sounding board to help us recalibrate our strategy and initiatives as we progress.

From our research and listening to the markets, we know there is a lot of interest among employees in improving their knowledge of mental health, how to look after their own mental health, and how to support others who might be struggling. To address this demand, we piloted Unmind, a workplace platform that provides a breadth of tools and training backed by the latest psychological research. It is intended to help employees understand more about and proactively look after and improve their mental well-being and that of others around them. The platform was made available in 10 countries in late 2021. We will review the results of this pilot and, if it is successful, will roll it out further.

Strengthening resilience

To build a solid well-being program, we must also look at how society and the workplace will evolve. An aging population—and workforce—coupled with new ways of working and increased digitalization mean that people will need to learn new capabilities and skills and unlearn others (read more about our lifelong learning program [here](#)).

Against this backdrop, we want to foster a mindset that helps our employees embrace change and strengthens their resilience to maintain well-being over the long term. In 2021, we piloted resilience deep-dive workshops in South Africa, accompanied by an online diagnostic tool. We intend to expand those workshops in select geographies in 2022.

Supporting our employees

We aim to provide well-being offerings that fit employee needs and expectations and that are anchored in the local context of where our people live and work.

Family and caregiver support

Our goal is to promote an inclusive and equitable vision of care through our global parental leave principles, which provide primary caregivers a minimum of 18 weeks of fully paid parental leave and a secondary caregiver a minimum of eight weeks fully paid parental leave.

The rollout of those new global principles began in January 2021. By the end of the year, more than 52 countries were aligned with the new global principles. We aim to cover all our markets by the end of 2022.

In parallel, we launched an online platform in 2021 that offers resources to support employees with the professional and personal challenges they may experience as a caregiver.

In addition, childcare facilities or contributions are provided in 28 of our markets. Further, most of our sites offer dedicated spaces to be used as lactation rooms.

Supporting our employees and their families

Our global Employee Assistance Program, launched in 2020, offers first-line support to our employees and their close relatives in the areas of psychological, financial, and legal counseling. Support is provided in local languages across 79 countries under high standards of confidentiality. By the end of 2021, the program covered 96 percent of our total workforce, with the remainder being covered by local schemes expected to transition to the global program in 2022 or 2023.

Flexible working arrangements

Even prior to COVID-19 and the shift to remote work, PMI was promoting more balanced ways of working. In 2021, around 95 percent of our markets already provided PMI employees with flexible working conditions, including remote work, part-time employment, unpaid leave, and flexible working time.



¹ Saloni Dattani, Hannah Ritchie and Max Roser (2021) – «Mental Health». Published online at OurWorldInData.org. Retrieved from: <https://ourworldindata.org/mental-health>

² World Health Organization – Mental health in the workplace, available at: <https://www.who.int/teams/mental-health-and-substance-use/promotion-prevention/mental-health-in-the-workplace>

Given the circumstances of the past two years, we found it necessary to revise our remote working arrangements. Drawing on the experiences and changed expectations of employees during the pandemic, we developed a global plan in 2020 that adopted the concept of hybrid work (remote and office-based). We call it "Smart Work."

Its philosophy and principles are global, with the general rule being that employees are permitted to work remotely up to 60 percent of the time, with the remainder of the workweek spent on-site. The program is deployed and adjusted locally to account for cultural, operational, tax, and legal implications, which vary at the national level.

In 2021, we continued to deploy Smart Work in markets where COVID-19 was receding and where local circumstances allowed it. By year-end, four markets had implemented it, and our intent is to launch it in most markets in 2022, subject to COVID-19 circumstances and restrictions.

Looking ahead, we plan to develop tailored arrangements for non-office-based employees, such as our factory and sales workforces.

Anchoring well-being initiatives in local realities
We have dedicated health and well-being committees in 60 of our markets, and, in the majority of our markets, we have deployed well-being-related interventions and benefits, ranging from gym membership offerings to sports competitions, mental health-related webinars, cooking classes, and other activities. Since the pandemic outbreak in 2020, our primary focus has been on COVID-19 safety measures and psychological support, including encouraging employees to prioritize their well-being.

For instance, our affiliate in Vietnam launched Vibe, a locally led well-being initiative centered on helping employees connect via shared interests and encourage one another to look after their well-being. Meanwhile, in the U.K., our affiliate launched a network of well-being ambassadors, composed of employees trained in mental health first aid. They offer non-judgmental listening and guidance to colleagues who are experiencing mental health issues and are not sure where to go for help.

We will continue to build on these initiatives by broadening the reach of our well-being ambassadors and training them in mental health first aid, as the U.K. has done, and engaging employees in relevant local events led or initiated by their colleagues.

Looking ahead

The health and safety of our employees will remain at the top of our agenda, and we will closely monitor how the pandemic evolves, adjusting our measures as needed and seeking ways to best support our employees. Where conditions allow, we will continue the deployment of Smart Work, fostering flexibility in where employees work. In parallel, we will seek to formalize our health and safety standards for remote work.

Continued development of our human capital is critical to PMI. In 2022, we plan to revamp our approach to learning to ensure employees get clarity on the capabilities and skills that will both boost their employability and contribute to the success of PMI, and we will work to ensure they have access to training and education in these areas. To that end, we will expand access to our lifelong learning program while seeking to strengthen it by developing tailored approaches to the varied needs within our workforce and offering more guidance and support to employees.

We will continue to foster sound employee and labor relations, maintaining an open dialogue and privileging the proactive involvement and participation of our employees and their representatives in these times of change.

Charles Bendotti, Senior Vice President, People & Culture



Protecting the physical and psychological safety and well-being of our employees around the world is a priority for our company. Just as we acted to keep our employees safe during the past two years of the global COVID-19 pandemic, we are now committed to protecting those employees affected by the war in Ukraine. This commitment starts by helping our Ukrainian colleagues and their families move from the areas hardest hit by the fighting and reach safety; then helping those who can cross the borders to do so, and supporting them outside the country in every way we can: financially, logically, and providing for their needs such as healthcare, childcare, food, accommodation and onwards travel. Our commitment extends to providing critical aid to those who cannot, or who choose not to, leave the country. It also extends to providing continued salary payments to all Ukrainian colleagues, whether they are in Ukraine or not, whether they are working or not, and to providing a package of support measures for the mid to long term including salary payments, more stable accommodation, and additional financial, healthcare, childcare, legal and administrative support. Our commitment and support to Ukrainian people is the commitment and support of our people, who have come together to collect funds, organize shipments of critical goods, offer their homes to host displaced families and provide psychological support to those in need. At the same time, we are also doing everything we can to support our Russian colleagues, who have been affected by this situation as well. We will not rest and we will not spare any efforts to help our colleagues affected by this horrible war.

Massimo Andolina, Senior Vice President, Operations

Building on the learnings gathered throughout 2021, we will continue to strengthen and deploy our employee well-being framework, with a focus globally on mental health. We will also continue to address the stigma associated with mental health and pilot initiatives to improve awareness and help employees develop the skills and confidence to have conversations about it. And we will continue rolling out our parental leave global guidelines, aiming to see them implemented in all markets by the end of 2022.

In 2022, we will set up an Inclusion & Diversity Advisory Council to foster open and constructive dialogue that will inform the development and execution of an integrated I&D strategy and monitor progress. We expect this council to guide our company in establishing meaningful strategies to meet our commitments to enhancing diversity and promoting inclusion—in particular, our new ambitions for 2025 related to gender-balance in management and leadership, as well as an appropriate representation of nationalities within executive management teams.

Meanwhile, we plan to expand many initiatives piloted in 2021, such as our Women in Leadership program, resilience workshops, and our program to increase the representation of women in sales and in senior roles. We also expect to celebrate the achievement of our 2022 target for female representation in managerial positions, and we are committed to fostering a gender-balanced organization as we progress toward our 2025 targets.

Our activities in 2022 will also focus on raising awareness of the importance of psychological safety and a sense of belonging at work through events and campaigns.

We will also continue to expand our employee resource groups by supporting our markets in establishing local chapters.

Silke Muenster, Chief Diversity Officer





OPERATIONAL IMPACT

Improve the quality of life of people in our supply chain

Our supply chain connects us with millions of people, from the farmers cultivating tobacco and other agricultural products to workers at the supplier companies that provide the products and services used in our products or necessary to run our business.

CONTENTS

- 146 Our management approach
- Progress in 2021
- 148 Alleviating poverty in our tobacco supply chain
- 151 Enhancing access to water, sanitation, and hygiene among tobacco-farming communities
- 151 Empowering women involved in tobacco farming
- 152 Eliminating labor abuses in our tobacco supply chain: Promoting PMI's Agricultural Labor Practices
- 159 Promoting fair working and living conditions in our broader supply chain
- 160 Looking ahead

The right thing to do

Promoting and adhering to sustainable business practices helps safeguard human rights, improve labor conditions, protect workers' health and safety, tackle social inequalities, and alleviate poverty.

Agricultural supply chains face specific sustainability and human rights challenges. The tobacco we source is cultivated in many regions of the world, including low- and middle-income countries, where it is typically grown on smallholder farms. The socioeconomic well-being of farmers and their families depends on many factors, including the nation's health and educational services, political stability, resilience to extreme weather events and conditions, access to markets, and public infrastructure. Our supply chain activities and investments extend beyond our direct effect on farmers, impacting people's assets, capabilities, opportunities, and standards of living.

As our business transforms, our supply chain evolves as well. Promoting fair working and living conditions in our broader supply chain is therefore increasingly important.

The business case

Caring for the quality of life of the people in our supply chain is consistent with our business purpose and way of working and is a major predictor of our long-term success. We prioritize our agricultural supply chain because it is a critical component of our business, and we understand its vulnerability to poverty and labor abuses. We prefer to work with farmers who make a decent living from growing tobacco, among other crops, or engage in other income-generating activities because they are more likely to think long term and apply good agricultural practices such as paying farmworkers at least the minimum legal wage or agricultural benchmark and avoiding child labor, thus minimizing our risk of human rights violations, import bans, and reputational damage.

We anticipate that the time, energy, and resources we have invested in our Agricultural Labor Practices program will provide the insights needed to ensure similar standards are met throughout the rest of our supply chain as we continue on our transformation journey. We seek to implement targeted initiatives that benefit the economies and societies in which we operate while mitigating reputational and operational risks in our working relationships.

OUR ASPIRATIONS

Sustainability Index

Maintain	>90% of contracted tobacco farms for which labor practices and adherence to our Agricultural Labor Practices Code are systematically monitored	100% of farmers and farmworkers having access to personal protective equipment for the application of crop protection agents and prevention of green tobacco sickness	100% of tobacco farmworkers are provided with safe and adequate accommodation
2022	100% of contracted farmers paying their workers at least the minimum legal wage or agricultural benchmark	100% of contracted farmers supplying tobacco to PMI make a living income	Zero child labor in our tobacco supply chain
2025	100% highest-risk countries covered by external human rights impact assessments, with findings addressed	100% of contracted farmers supplying tobacco to PMI have basic water access	100% of critical suppliers from whom PMI sources sustainably
2030	100% of contracted farmers supplying tobacco to PMI have access to basic sanitation and hygiene		

Our management approach

We emphasize good corporate governance. Sound standards and practices to manage our supply chain sustainably (read more [here](#)) and safeguard human rights (read more [here](#)) are vital prerequisites to harnessing the connections in our supply chain to improve the quality of life of those involved.

A principal aim of PMI is to provide a decent livelihood to all contracted farmers in our tobacco supply chain. This has been a focus since we introduced our [Agricultural Labor Practices](#) (ALP) program in 2011, supplemented by the [ALP Step Change](#) in 2018.

The mid- and long-term targets that we have committed to cover labor standards, income, work hours, health and safety, accommodation, and access to water, sanitation, and hygiene.

Our [ALP Code](#), based on International Labour Organization (ILO) conventions and aligned with the United Nations Guiding Principles on Business and Human Rights (UNGPs), sets the principles and measurable standards applicable to all the contracted farmers from whom we source tobacco. The ALP program is supported by related policies, including our [Good Agricultural Practices](#) (GAP), [Commitment to Human Rights](#), and [Responsible Sourcing Principles](#) (RSP).

Our Leaf teams, tobacco suppliers, contracted farmers, and workers are regularly trained on the ALP Code. Our integrated production system enables traceability at the farm level (read more [here](#)). And we have a robust due diligence framework in place to evaluate the implementation of our ALP Code (read more in the box below).

Monitoring the implementation of our ALP program

Our due diligence framework to evaluate the implementation of our ALP Code comprises internal farm-by-farm monitoring by field technicians, external comprehensive and focused assessments by Control Union, and external verification by specialized third parties.

Internal monitoring: Field technicians collect and update individual farm profile data at the start of each growing season and visit the farms throughout the season to evaluate, among other things, how well labor practices align with the principles of the ALP Code. These technicians raise “prompt actions” to flag and trigger an immediate response to any serious violation. They also report “nonconformities”—identifying risks before they have evolved into issues, which helps us proactively mitigate them. Field technicians work with farmers to develop remediation plans to address prompt actions and nonconformities identified, and they then follow up on and monitor these plans. If the matter is not resolved within the agreed timeline, it is further escalated and may lead to sanctions, which can include contract termination.

External assessments: Control Union (CU), an independent third-party organization, evaluates the management system in place for ALP implementation, reviews prompt action protocols and procedures to identify, record, and address issues, and examines the internal capacity to implement the ALP program. CU also evaluates labor practices at the farm level, assessing compliance with the ALP measurable standards. Its reports are available on [PMI.com](#), and CU performs focused assessments to evaluate the management systems in place relating to the Step Change priority areas, in addition to the broader farm-level assessment.

External verification: Specialized third parties verify our understanding of progress on the ground, challenge our monitoring data, evaluate the effectiveness of our initiatives, and, ultimately, help us to better assess our impact. We work with local expert partners in different geographies.

We use a risk-based approach to identify, prevent, and mitigate incidents related to human rights and labor rights in our tobacco supply chain. For this undertaking, we collaborate with key stakeholders—such as suppliers, farmers and farmer associations, civil society organizations, academics, governments, and the private sector—to more effectively tackle persistent and systemic issues in the agricultural sector.

Since 2018, we have deployed a [Step Change](#) approach to our ALP program focused on four priority areas: eliminating child labor, ensuring payment of at least a minimum legal wage or agricultural benchmark, ensuring the availability and appropriate use of personal protective equipment (PPE), and ensuring adequate accommodation for workers where farmers choose to provide housing. Step Change aims to resolve the root causes of these persistent issues in priority countries—which we assess periodically—and is run in collaboration with our long-term strategic partner on the ALP program, Verité.

Our governance arrangements guide and facilitate this work. PMI's Senior Vice President of Operations, a member of our Company Management, is accountable for our success in this area, while operational responsibility lies with the head of our Leaf department.

In each sourcing region, a management team oversees the implementation of ALP. A steering committee works closely with the dedicated local teams across our affiliates and suppliers.

Beyond tobacco, we will leverage the extensive learnings from the ALP program and our human rights impact assessments to proactively adapt to the specificities and challenges that derive from our electronics supply chain. We will also explore pathways to promote a living wage across our supply chain. We are at the early stage of this journey and are focused on building our understanding and identifying meaningful strategies to deploy in the years to come, grounded in our [Commitment to Human Rights](#) and [Responsible Sourcing Principles](#). We are committed to sourcing sustainably from all our critical suppliers (read more [here](#)) and conducting human rights impact assessments in our 10 highest-risk markets by 2025 (read more [here](#)). We will leverage the due diligence tools and learnings we have in place and seek meaningful ways to impact the significant number of workers involved in our global supply chain.

Sharing our experiences

Transparency on both the challenges and successes of our ALP program is critical because it lets us hear feedback from stakeholders on how best to tackle systemic issues. To that end, we publish regular updates, which we make available on [PMI.com](#). Our [first quarter ALP Progress Update](#) in 2021 focused on PPE and accommodation.

In 2021, we commemorated the 10th anniversary of our ALP program with a dedicated report (available [here](#)) in which we reflected on progress made, celebrated achievements, and recognized the challenges ahead. As our company and supply chain continue to transform, we envision the next 10 years looking dramatically different from a sustainability and supply chain perspective.



Progress in 2021

During 2021, we maintained relentless efforts to deploy impactful initiatives across our tobacco supply chain and monitor adherence to our standards. We also took steps toward achieving our broader ambition covering our extended supply chain.

Alleviating poverty in our tobacco supply chain

Poverty leads to poor working and living conditions, including the use of child labor. We are aiming to improve the livelihoods of the contracted farmers supplying tobacco to PMI, thereby advancing the socioeconomic development of the communities in which they live. We see this as fundamental to addressing social inequality, as well as other issues in our tobacco supply chain, and our aim is for all the contracted farmers supplying tobacco to PMI to make a living income by 2025.

Measuring income levels in our tobacco supply chain to drive meaningful action

The living income value determines the net annual income required for a household to afford a decent standard of living for all its members. We calculate it based on official benchmark studies, reference values, or internal desktop exercises. In 2020, we tasked Social Accountability International (SAI) to conduct official living income benchmark studies in two sourcing markets—Malawi and Pakistan—in line with the Anker methodology. Regrettably, COVID-19 restrictions delayed completion of the fieldwork and reporting. It was therefore not until late 2021 that we received the final report for Pakistan and a draft report for Malawi. In 2021, we also initiated official living income benchmark studies in four additional countries with SAI. By year-end, the initial engagement with the researchers and our regional teams and local suppliers had commenced in India, Mexico, and the Philippines. The fourth study, in Brazil, will commence in 2022. We expect all four studies to be completed and the final reports received during 2022. In three other markets (Argentina, Mozambique, and Turkey), we use reference values conducted in previous years, which represent the typical or average living incomes for rural areas within each country. In the remainder of our sourcing markets, we calculate the living income value based on an internal desktop analysis following the Anker methodology.

In parallel, we assess the income level of our contracted farmers in each sourcing market, including both on-farm and off-farm activities, net of production cost, and including remittances or other subsidies. On-farm activities include income generated from the sale of tobacco and the production of other crops and livestock, while off-farm income comes from revenue-generating activities outside the farm such as waged employment. These analyses rely mostly on our internal farm-by-farm monitoring but may also incorporate third-party studies by local partners such as those conducted in India and Mexico in 2021.

When designing comprehensive action plans, we aim to exceed the living income benchmark targets that are required to achieve a decent standard of living. This affords a buffer to accommodate potential fluctuations in farmer incomes due to climatic shocks or volatility due to market dynamics. We periodically review the living income benchmarks to account for annual inflationary increases and revise farmer income studies to consider market dynamics that may impact farmers' overall income.

Assessing income levels in our tobacco sourcing markets

Robust analyses and studies to define living income values and assess current farmer incomes (and the potential gap between the two) across our sourcing markets form the backbone of our approach.

The insights captured in these studies allow us to track the proportion of contracted farmers making a living income. This proportion increased significantly in 2021, reaching 67 percent (up from 48 percent in 2020), as a result of both important progress achieved in some focus markets like Argentina, Malawi, and Mozambique, as well as increased data availability in countries like Brazil, Greece, and Turkey. Further, our analysis showed that our contracted farmers in several markets, including Brazil, Greece, Pakistan, and Turkey, already make a living income. In other countries, such as Argentina, a significant proportion of them do so. Based on the data, our studies confirmed the need to continue focusing our actions on four markets: Malawi, Mexico, Mozambique, and the Philippines.

Implementing targeted interventions to close the living income gap

Driven by the results of our assessments, we implement various initiatives to improve income levels. While we tailor activities to local realities and needs, our overall strategy is universal: Firstly, we aim to improve tobacco crop productivity and competitiveness. Secondly, we seek to support households in diversifying their sources of income.

Improving productivity

Our first focus is on enhancing tobacco production and encouraging farm efficiency. We support the farmers in maximizing efficiencies on their farms—for example, by hiring only the labor required, making careful use of inputs such as fertilizer, and finding ways to increase yields per hectare. The mechanization of certain steps of tobacco cultivation (such as field preparation) can maximize efficiencies by achieving labor savings and elevating yields.

In 2021, we continued to expand our mechanization program in **Malawi** and provide an opportunity for farmers to improve their productivity in tobacco. A total of more than 1,600 smallholder farmers, covering nearly 2,900 hectares opted for mechanization services provided by 32 local entrepreneurs. This mechanization initiative, in combination with other agricultural practices,

generated a 10 percent increase in yields and the mechanized plowing itself has reduced by 37 percent the labor hours required for the land preparation of one hectare in Malawi. Meanwhile in **Mozambique**, we initiated a mechanization pilot which we expect will cover 170 hectares. In **Argentina**, the mechanization program continued in 2021 with the objective to improve farm productivity, mitigate potential risks associated with manual tasks, and contribute to soil conservation. These services included soil preparation, transplanting, CPA spraying, and harvesting, with the predominant activity being soil preparation. In the North West region of Argentina where flue-cured tobacco is grown, the mechanization initiatives generated a 30 percent reduction in the overall labor hours needed for the various crop stages. In the North East region, where our Burley farmers are located, mechanized farmers were able to reduce by more than 50 percent the labor requirements for land preparation and have achieved an 18 percent increase in yields in the last crop season compared with nonmechanized farmers. In **India**, the focus of the mechanization program is to increase labor efficiency and, in 2021, we implemented multiple initiatives with varying coverage among the farmer base. These initiatives included seeding machines, transplanters, cultivators combined with fertilizer applicator, suckeride applicators, and stringing machines. The predominant initiative is combining cultivators with fertilizer applicators, with 69 machines to date covering over 2,200 hectares and more than 2,800 farmers. In **Pakistan**, the focus of the mechanization program is to increase labor efficiency while mitigating potential risks associated with manual tasks. The initiatives implemented so far include mechanical earthing up machines, mechanical transplanters, CPA applicators, and stringing machines. The predominant initiatives are mechanical earthing up, where we have 109 machines, covering 3,600 hectares and around 2,500 farmers and stringing machines where we have 168 machines, covering 549 hectares and 262 farmers. The results obtained showed us that, with the mechanical transplanter, farmers were able to gain 41 percent efficiency compared with manual transplanting, the earthing up tools increased efficiency by 82 percent versus the manual work, the suckeride applicator led to a 25 percent efficiency gain, and, finally, the stringing machine resulted in a 27 percent efficiency gain compared with the manual stick and tying, also contributing to a reduction of child labor incidents.

Supporting households in diversifying their income sources

We also look at opportunities to implement other income-generating activities. Notably, the cultivation of complementary crops beyond tobacco can improve farm income while enhancing resilience against climate change and economic uncertainty. In 2021, we estimate that around two-thirds of our contracted farmers also grew crops other than tobacco.

For instance, during the year, we supported the establishment of microbusiness programs in Indonesia with 104 women beneficiaries to produce backyard crops such as herbs, spices, yams, and papaya. Meanwhile, in Argentina and India (reaching 236 and 360 farmers, respectively) we expanded the production of okra, cluster bean, tomato, cowpea, and maize. Additionally, in Pakistan, the initiatives to produce mushrooms and backyard vegetables were expanded to close to 600 farmers and around 2,400 farmers respectively.

Lastly, in Mozambique, we expanded the treadle-pump and winter-crop support project to an additional 1,760 farmers, bringing the total beneficiaries to date to over 3,000, with an estimated 600 hectares under treadle-pump irrigation production.

Mitigating the impact of the gradual decrease in our tobacco demand

The growth of our smoke-free business intentionally results in a simultaneous decline of our cigarette business. This translates into a gradual decrease in our overall demand for tobacco leaf. Over the past five years, our demand for leaf fell 21 percent, from 370 million kilograms in 2016 down to approximately 291 million kilograms in 2021. This resulted in a reduction in the volume of tobacco we purchase in some markets and the elimination of our sourcing activities in others. Such change has an undeniable impact on contracted farmers, especially those whose primary source of income traditionally has derived from tobacco growing.

We are aiming to address and, to the extent we can, minimize the negative effects of this shift. We do this through a dedicated assessment of the unique realities and contingencies that define each country or region where we source tobacco, building an understanding of the local ecosystem to tailor and implement sustainable solutions that can help farmers transition to sustainable alternative livelihoods where needed.

In some cases, farmers are not heavily reliant on tobacco production for their livelihoods, have the means to easily switch to other crops, or will continue to grow tobacco for other customers. In other geographies, we provide additional support to help mitigate the negative impact of our reduced purchases (read, for instance, about our efforts in Colombia—where we stopped purchasing tobacco—in our [2020 Integrated Report](#)).

More broadly, the initiatives we implement to help contracted farmers earn a living income support the elimination of farming inefficiencies. They also promote practices—such as mechanization and irrigation technologies—that improve productivity of the tobacco crop and also help farmers diversify their production to other crops. We expect these efforts to play an important role in minimizing the potential negative economic impacts on contracted farmers of our transformation and consequential reduction in demand for tobacco.

Enhancing access to water, sanitation, and hygiene among tobacco-farming communities

The link between poverty and inadequate access to water, sanitation, and hygiene (WASH) is well established. We know, too, that enhancing WASH infrastructure can substantially improve the well-being and livelihoods of community members.

To ensure all farmers within PMI's footprint have basic access to water by 2025 and to sanitation and hygiene by 2030, we developed a framework guided by the Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP), established by the WHO and UNICEF.

In 2021, we collected global WASH data through farm-by-farm monitoring and surveys, applying JMP's universal indicators. This research has identified Argentina as an additional priority market for drinking water access (alongside Malawi and Mozambique), and an implementation plan has been developed focused on springs protection. We also developed water quality guidelines, water availability guidelines, and an animated training video that explains the concepts and importance of WASH to our farmers.

Joint efforts with our suppliers on providing drinking water access in Malawi and Mozambique continued in 2021, with the drilling of 114 new handpump boreholes in Malawi, 55 in Mozambique, and the rehabilitation of 50 boreholes in Malawi and 50 boreholes in Mozambique. Since many boreholes are nonfunctioning in Africa, rehabilitation is an essential part of our strategy.

Empowering women involved in tobacco farming

Around the world, women participate in agriculture both as members of family farming households and as hired wage labor on farms owned and operated by other households or companies.

Many of the gender inequalities faced by women in general are exacerbated for women in agriculture. Globally, less than 15 percent of agricultural land is owned by women,¹ and women involved in tobacco farming often face structural and cultural barriers such as gender gaps in earnings, financial inclusion, access to credit, employment segmentation, lack of ownership of land and property, inadequate opportunities to receive training or technical support, and difficulty balancing domestic responsibilities.

Since the inception of our ALP program, gender equality and fair treatment have been incorporated as key principles in all the countries from which we source tobacco. When we evolved the program to include a Step Change approach in 2018, we seized the opportunity to strengthen our contribution to gender equality, taking into consideration the instrumental role women play in improving household economic conditions and addressing child labor and other social challenges. Consequently, PMI's ALP program now deploys across our sourcing markets several initiatives focused on women empowerment. These initiatives include, for instance, self-help groups in India through which women help one another start microbusinesses, a women-only ALP task force to perform monitoring in Pakistan, and entrepreneurship training and information on healthcare services for women farmers and their spouses in Argentina.

¹ Source: Food and Agriculture Organization of the United States.



Eliminating labor abuses in our tobacco supply chain: Promoting PMI's Agricultural Labor Practices

Our ALP Code principles are as follows: No child labor, fair income and work hours, no forced labor or human trafficking, a safe work environment, fair treatment, freedom of association, and terms of employment.

In 2021, 2,530 field technicians contracted by either PMI or our leaf suppliers systematically monitored the implementation of the principles and measurable standards of ALP on 91 percent of all 253,813 contracted farms (2020: 93 percent). The monitoring in 2021 continued to be impacted by COVID-19 restrictions in certain markets. In Indonesia, where national restrictions limited their ability to physically visit farmers, field technicians made contact and conducted remote monitoring through mobile phones and digital applications.

Likewise, when the government in the Philippines implemented restrictions in specific towns and villages due to a rise in COVID-19 cases, our leaf suppliers' technicians conducted remote monitoring via mobile phones. We are committed to continually strengthening our monitoring to improve our visibility of existing issues, take a more risk-based approach, and more effectively address the issues identified.

Our 2021 ALP monitoring farm-level data covers 20 out of the 21 countries from which we sourced in 2021—data set for Switzerland was not included. For the first year, however, 100 percent of the Swiss farms were monitored by an independent company. These farms were visited once during the season and the purpose of this visit was to validate the results obtained from a self-assessment questionnaire completed by the farmers.

This first year of monitoring highlighted non-conformities with our ALP Code that were extensively discussed with SOTA (cooperative responsible for the purchase of Swiss tobacco) and SwissTabac (Swiss tobacco farmers association) that contracts with the farmers. According to Swiss Tobacco Tax legislation, the Swiss government can oblige companies making and selling cigarettes in Switzerland to purchase a certain amount of tobacco cultivated in the country. In that regard, due to the uniqueness of the contractual relationship our company has through SOTA with SwissTabac and all of the Swiss tobacco farmers, our ability to enforce our agricultural labor practices is more limited, and so is our ability to influence our ALP Code's full adoption. This is because some of our ALP requirements (which align with ILO's standards and definitions of child labor) are more stringent than Swiss law. We remain, however, committed to continue promoting our ALP principles and furthering their implementation in Switzerland.

In 2021, field technicians reported a total of 9,918 prompt actions across all sourcing markets, of which 76 percent related to safe working environment issues, 11 percent to child labor incidents, and 13 percent to income and working hours. In total, 86 percent of the prompt actions raised were resolved during the year, with the remaining 14 percent of prompt actions followed-up yet not resolved, predominantly due to the timing of the crop stage.

In addition to internal monitoring, Control Union conducted external assessments in one market in 2021 (China). The assessment scheduled in Indonesia was postponed to 2022 due to COVID-19 restrictions. External verification by local third-party organizations was undertaken in six markets. Moreover, during the year, we actively collaborated with a peer company and our common tobacco leaf supplier to conduct a targeted human rights impact assessment in the tobacco supply chain in Turkey (read more [here](#)).

Across the countries from which we source tobacco, the most recurrent and difficult challenges relate to work performed by children, insufficient use of personal protective equipment, and payment of a minimum legal wage (or formalized agricultural benchmark) to farmworkers. We have developed and are implementing action plans to address these recurrent issues in collaboration with key stakeholders, including our strategic partner Verité, local NGOs, and governments.

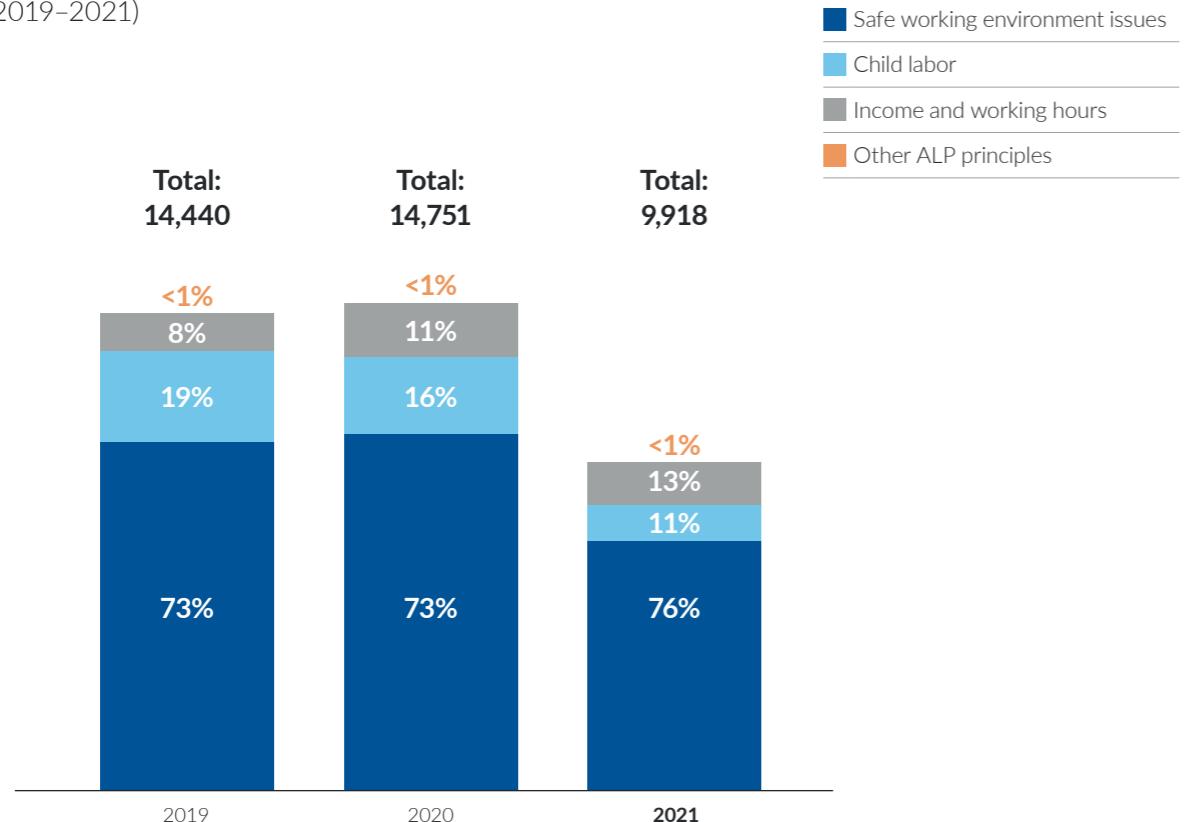
The overwhelming majority of our relationships with contracted farmers feature a shared commitment to continuous improvement in addressing social issues. If a contracted farmer is noncompliant and fails to address gaps identified, we may end our business relationship with that farmer. In 2021, 875 contracts were terminated due to ALP violations (2020: 1,794). The decrease compared to 2020 is mainly attributable to Mozambique, where robust pre-contracting due diligence has been put in place.

To further support compliance with our ALP Code, we consolidated training materials used on the ground. After identifying training needs and best practices, we revamped these materials and, with the guidance of Verité, developed a learning framework applicable to ALP professionals and field technicians around the world.

This updated and standardized curriculum will ensure that suppliers and field technicians receive consistent guidance about their responsibilities, the principles and standards they are expected to uphold, and the skills needed to carry out their work. The content has been updated to reflect the current state of the ALP program, including new priorities, and deliver refreshed reference materials, handouts, training tools, and other resources such as case studies, practical exercises, and knowledge tests. The format allows the customization of content to meet the different training needs of diverse markets and learners. In 2022, we plan to roll out the revamped materials through webinars following a "train the trainer" initiative with suppliers.



Total prompt actions recorded by field technicians (2019–2021)



Eliminating child labor

We maintain a relentless focus on preventing incidents of child labor and take immediate action when they arise.

Our objective is to eradicate child labor cases in our tobacco supply chain that are repetitive and systemic by 2025. We acknowledge that isolated cases—even when systemic occurrences are fully addressed—might persist due to farmer turnover or unintentional misbehaviors, and we will remain alert and tackle them promptly when identified.

We use International Labour Organization standards to measure our progress toward our target of zero child labor. Our traditional reporting approach centers on preventing children from performing hazardous tasks. In 2020, we introduced a new methodology to include the employment of children under age 15 and children under 13 doing any tobacco-related tasks. This new methodology reinforces our risk-based due diligence processes as it improves visibility and granularity on child labor across our sourcing markets.

Calculating child labor prevalence

The calculation of child labor prevalence, introduced in 2020, is based on the introduction of two new elements to enhance our methodology:

- Self-declared nonconformities:** These are risks identified before they become issues. We identify nonconformities by reinforcing our risk-based approach in our farm-by-farm monitoring to strengthen procedures and techniques to better identify risks. These are identified through interviews with or direct observations from the farmer and workers on a farm or their direct observations brought to the attention of field technicians. Their reporting helps us flag risks and proactively mitigate them.
- Consolidated reporting:** This means reporting child labor incidences raised as prompt actions by field technicians by aggregating them per type (children under 18 doing hazardous tasks, children under 15 hired, and children under 13 doing any tobacco-related task).

Results over the past two years show a decline in the prevalence of child labor among our contracted farms, from 3.5 percent in 2020 to 1.8 percent in 2021. This decrease is mainly attributed to Argentina, Mexico, Mozambique, and Turkey, where we observed the positive impact of years of implementation of the ALP Program.

We are, however, cautious of this positive trend, as in 2021, the COVID-19 pandemic continued to impact our initiatives and child labor remediation actions. Further, we acknowledge the limitations of our monitoring system, as well as the complex and persistent nature of child labor. Nonetheless, our field technicians continued to conduct farm-by-farm monitoring where possible and to support farmers in addressing and remediating child labor risks and incidents.

During 2021, field technicians monitored 98 percent of contracted farms for child labor-related issues and recorded a total of 1,175 prompt actions (2020: 99 percent; 2,352 prompt actions). Of those, 1,121 cases involved children performing hazardous tasks (2020: 2,285), 16 related to children under 15 hired (2020: three), and 38 pertained to children under 13 performing light work (2020: 64). In total, these prompt actions involved 1,609 children, with 93 percent of them being the farmers' children. The most common tasks field technicians found the children doing were harvesting or handling green tobacco and stringing. A significant proportion of this reduction comes from Turkey, which can be mainly attributed to a change in sourcing footprint versus 2020.

Of all child labor-related prompt actions recorded in 2021, 99 percent were resolved, and the remaining 1 percent had monitored action plans in place.

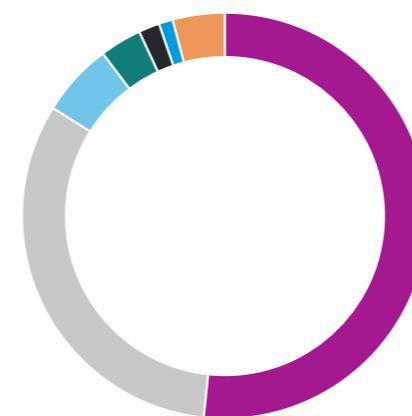
Field technicians further support our efforts to remediate prompt actions and eradicate child labor by raising awareness and offering training, promoting school access and attendance, conducting vocational training, and supporting initiatives to improve household income levels.

See our [ALP 10-year anniversary report](#)

published in 2021 for examples of projects we support on the ground to help eradicate child labor in our tobacco supply chain.

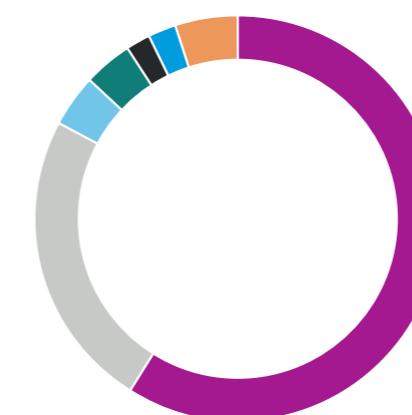
In many geographies, the findings of external assessments related to child labor are reasonably well aligned with our internal monitoring data, which show continued improvement in our visibility on the ground and the accuracy of our internal data. We remain focused on further strengthening our controls, for example by increasing the number of unannounced visits and improving the training of field technicians on monitoring techniques.

Total number of child labor prompt actions recorded in 2021, by geography



Mozambique	610
Turkey	376
North Macedonia	69
Malawi	39
Pakistan	22
Indonesia	13
Other	46

Types of prompt action recorded in 2021 relating to hazardous work performed by children



Harvesting or handling green tobacco	59%
Stringing	24%
Carrying heavy loads	4%
Working with sharp tools	4%
Driving a tractor or operating machinery	2%
Handling or applying CPA or fertilizer	2%
Other	5%

Implementing an individualized approach to mitigate the impact of COVID-19 on access to education

Our colleagues in Argentina, who are actively engaged in our Porvenir program, acted fast when COVID-19 entered their market. The aim was to ensure that the most vulnerable farmer families and their children continued having access to education by creating a nexus between families and rural schools.

Historically, the Porvenir program in Misiones based its strategy on access to education and alternative spaces to keep the children away from child labor risks. Some of the main interventions were after-school activities, workshops, and leisure events in community spaces. COVID-19 restrictions led to school closures and social meetings prohibition, affecting the program's normal execution. Massalin Particulares and Conciencia Association acknowledged that this situation, if not addressed properly, could lead to an increase of child labor risk.

This is when the family accompaniment was created, reaching more than 800 families and 1,600 children during 2020 and 2021. The benefited families from El Soberbio, San Vicente, and San Pedro received bi-weekly visits from a liaison to ensure children were regularly receiving and doing school homework and making progress toward the academic year. The approach was designed to target not only the kids but also their parents since they play a key role in mitigating and preventing child labor within the tobacco farm.

The results of the family accompaniment program were very encouraging, with 80 percent of children at school age who continued schooling, 20 percent of unschooled children who resumed their studies, and zero child labor cases identified.



Promoting a safe working environment

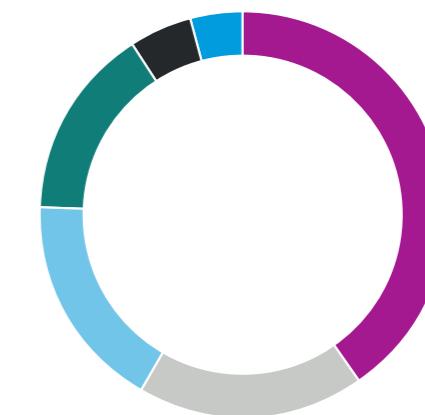
In line with PMI's ALP Code, we require farmers to provide a safe workplace to prevent accidents and injury and minimize health risks.

In 2021, field technicians recorded a total of 7,514 prompt actions related to unsafe working environments (2020: 10,816). Around 58 percent of these prompt actions related to handling green tobacco and applying crop protection agents (CPA) without the proper PPE, 17 percent related to incorrect storage of CPA containers, and 15 percent related to working at height without protection. The key focus areas remain to address the nonusage of PPE when handling green tobacco and incorrect storage of CPA containers, whereas a new area of risk has been identified: working at height. In all cases, targeted training will be delivered.

During the year, we focused on maintaining access to appropriate PPE for all our contracted farmers and farmworkers. In addition to being available, PPE needs to be appropriately used. Understanding the hazards related to certain tobacco tasks and encouraging behavior change is key to safeguarding the health and safety of those involved.

Meanwhile, we also monitored the provision of safe and adequate accommodation by farmers to workers, when relevant (in 2021, around 5 percent of our contracted farmers provided accommodation to workers). Further, we rolled out a reinforced set of global minimum accommodation standards (including relevant WASH requirements) across all sourcing markets to bring better sophistication and consistency and further enhance the living and working conditions of farmworkers. Around 5 percent of prompt actions raised within the unsafe working environment in 2021 were related to the new accommodation standards with all of them addressed within the same crop season, with the exception of three prompt actions.

Types of prompt actions recorded in 2021 relating to safe working environment issues



Exposure to GTS due to not wearing proper PPE	40%
Exposure to CPA due to not wearing proper PPE	18%
CPA stored in a way that could cause a health and safety accident	17%
Working at height without protection	15%
Unsafe or insufficient work accommodation	5%
Other	4%

Advancing minimum wages for farmworkers

In a typical crop season, approximately 33 percent of contracted farmers supplying PMI or our suppliers hire workers. Income earned by farmworkers during a pay period or growing season should be enough to meet their basic needs. Our ALP Code requires that the wages of all workers (including temporary, piece-rate, seasonal, and migrant workers) meet—at a minimum—the national legal standard or formalized agricultural benchmark standard.

In 2021, we monitored the wages of 91 percent of our contracted tobacco farmers and found that 95 percent of farmworkers were paid at least the minimum wage (2020: 65 percent). Field technicians recorded a total of 1,154 prompt actions related to farmers paying less than the minimum wage to their workers (2020: 1,541). The data reflects significant progress due to an increased focus on minimum wage payment, along with relevant controls implemented during pre-contracting due diligence and the delivery of targeted training.

Tackling the challenges linked to minimum wage in India

The issue of minimum wage payment in agriculture in India is complex and widespread across the country. In Vinukonda, the tobacco growing area falls across three different zones where each of the local governments set their legal minimum wage, which is updated twice per year. Minimum wage varies by tasks for all crops, resulting in some activities requiring higher wages than others.

Based on engagement with stakeholders, farmers follow unofficial benchmarks agreed at the village level before the crop season starts and may not align with the government legislation on minimum wage rates. In addition, these unofficial benchmarks may vary due to supply and demand for workers during the key crop stages and payment to women workers is typically lower compared to men.

Given the different wages paid to men and women workers and the fluctuating unofficial benchmarks, PMI together with our local suppliers considered it necessary to monitor the payment of wages throughout the various tobacco stages.

The monitoring is based on key data collected, including the number of hired men and women

Further, year-on-year change was also driven by improved data quality and availability, allowing enhanced measurement.

While encouraged by the progress made so far, we know that wage-related challenges relate not only to substandard payment but also to informal terms of employment, inconsistency between supply and demand of labor, and workers' lack of knowledge about their rights. In the past, a challenge we faced in some countries related to the lack of an applicable legal minimum wage, such as in Indonesia, or formalized agricultural benchmark, such as in Argentina. In 2021, following extensive stakeholder engagement or introduction of new legislation, the minimum wage rates have been set and we are monitoring and reporting against those.

Our two most challenging geographies regarding minimum wage payments are Turkey (read more in [this case study](#)) and India (see below).

workers, actual wages paid, and the number of hours they work, among others. Based on these data points, a weighted average of the combined tasks performed during the crop season per farm is applied to determine if the farmer is paying the legal minimum wage. This methodology is conducted on a representative sample within the relevant zones with the results extrapolated to the total farmer base.

In order to proactively address payment gaps, we have implemented two initiatives. Firstly, we are rolling out mechanization for labor-intensive tasks such as transplanting, inter-cultivation, and stitching of harvested leaves, which aims to improve efficiencies on the farm. Secondly, we are piloting the payment support to workers, aiming to bridge the gap between the actual average wage and the legal minimum wage by directly providing payment support to eligible workers at the end of the tobacco season. The impact of these initiatives will be assessed during its implementation and continuously monitored throughout 2022. Depending on the results, we will explore further expansion of these initiatives.

Promoting fair working and living conditions in our broader supply chain

We aim to leverage our experience in our tobacco supply chain to promote high labor standards and advance the socioeconomic well-being of workers across our broader supply chain.

Our Responsible Sourcing Principles set out ambitions and expectations for our suppliers, including human and labor rights considerations. We monitor adherence to the RSP and the sustainability performance of our critical suppliers through tailored due diligence instruments, including the EcoVadis platform for our direct materials suppliers and the Validated Assessment Program (VAP) of the Responsible Business Alliance (RBA) for our electronics suppliers (read more [here](#)).

In 2021, we joined RBA, the electronics industry initiative for sustainable supply chains. During our first year of membership, we were able to use RBA's best-in-class methodologies and tools, including on-site audit reports shared among members, to significantly enhance the evaluation and performance of our suppliers. The RBA Validated Assessment Program is a leading standard for on-site compliance verification and effective, shareable audits.

Data gathered through the VAP in 2021 highlighted a strong performance by our suppliers (our suppliers' average initial VAP audit score was 160 out of 200, compared with an RBA average of 127), as well as scope for continuous improvement. Identified areas for improvement included working hours, one day off every seven days, and emergency preparedness—all issues common to the electronics industry. In addition to setting up suppliers' improvement plans, we introduced RBA online training to electronics suppliers to enhance their awareness and understanding of best practices and provide new approaches and tools to drive performance improvement.

To further build our understanding, we worked with Article One to conduct a human rights risks saliency mapping focused on our electronics supply chain (read more [here](#)). Article One's findings and recommendations further support the strategic relevance of our RBA membership.

With regard to our non-electronics supply base, we successfully transitioned our supplier due diligence program to EcoVadis, the leading global provider of online ESG supplier assessments.

This shift significantly strengthens our approach by allowing us to access a vast number of ESG scorecards commissioned by EcoVadis users. In addition to providing fact-based and detailed supplier evaluations, these assessments let us see improvement programs undertaken. The assessments are available on the EcoVadis digital platform, which allows seamless sharing among all supplier and customer participants, creating an effective collaboration ecosystem. In 2021, our critical suppliers of direct materials assessed in EcoVadis achieved an average social score of 56 (out of a maximum score of 100). This first year of assessment will provide us the basis for deeper analysis, in order to develop targeted programs in the coming years.

Meanwhile, our broad and in-depth human rights impact assessments—which we aim to conduct in our 10 highest-risk markets by 2025—provide us with granular insights into social challenges along our value chain. Read more [here](#).



Looking ahead

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Over the past ten years we have gained valuable expertise in tackling social challenges in our tobacco supply chain and understand the power of building lasting capabilities and fair remuneration to address many inequalities. As our company continues to transform, so does our supply chain and with this come new challenges and opportunities.

During 2022, we will craft a strategy that can comprehensively address this new context, including the specific challenges of the electronic supply chain that are still somewhat new to our industry. Building on a wealth of experience that we have acquired by working over many years and across multiple geographies on living income programs, we will seek to expand our impact more broadly in our supply chain.



We are aware that this will require strong engagement with our suppliers, with our business partners, with others in the private sector as well as strong collaboration with specialized organizations, academics, and governments. With better visibility of the issues we are trying to solve, with quality data and with robust partnerships, we will be able to develop a social sustainability strategy in our value chain that is leading and innovative, and that supports the very purpose of our company transformation. In summary, we will work to make sure that our transformation, strategy, and plans are viable, sustainable, and create systemic net positive impact.

Massimo Andolina, Senior Vice President, Operations

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Our aspiration is to ensure that farmers and other workers in our supply chain enjoy a decent standard of living. The challenges we face as we work to establish a concrete strategy include lack of transparency related to policies, practices, and concrete data on issues related to living wage. Nevertheless, we are determined to build a robust strategy that can pave the way to access meaningful information with which we will be able to craft engagement plans and programs that are able to respond to the pressing need of expanding our ambitions to impact and improve the quality of life of people in our supply chain. In 2022, we will also update our Commitment to Human Rights and upgrade our Responsible Sourcing Principles to integrate new trends, external requirements, our latest sustainability materiality assessment, and refreshed corporate priorities. Diversity and inclusion together with equitable livelihoods will be among the new areas of focus.

Marcel Jacobs, Director, Social Sustainability Operations



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Our intention is to champion the adoption of living income and high labor standards in the tobacco supply chain and we will continue developing and implementing sound programs that can do that. We will also continue to closely monitor labor practices and address incidents raised, with a view to eradicating systemic child labor by 2025. A key focus in 2022 will be to continue promoting the payment of at least the minimum legal wage to farmworkers and ensure basic access to water to contracted farmers. We will keep seeking ways to strengthen our monitoring and remediation systems and plan to conduct external verification in priority markets.



In 2022, we plan to strengthen our approach by covering the full life cycle of tobacco production, including both the field and processing stages, and focusing on the tobacco we purchase and use in our products. We expect this enhanced approach to generate positive impact by influencing our partners who operate in tobacco growing countries to accelerate actions and sustainably address ESG challenges. We will continue monitoring and having visibility on the wider tobacco farming communities, collecting the insights needed to continue supporting farmers through tailored initiatives, strengthening remediation programs for the issues identified, and ultimately contributing to the improvement of farmers' livelihoods.

Pedro Braga, Vice President, Leaf

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OPERATIONAL IMPACT

Tackle climate change

Climate change is among the greatest threats to society. There is broad scientific consensus about the urgency of setting more ambitious emission reduction targets to limit the rise in the global temperature to 1.5 degrees Celsius above preindustrial levels. These commitments now need to translate into concrete actions that support and are fully aligned with the Paris Climate Agreement.

CONTENTS

164 Our management approach

Progress in 2021

166 Overview of our carbon footprint in 2021

168 Accelerating our efforts toward carbon neutrality in our operations

172 Leading carbon reduction in our tobacco supply chain

175 Joining forces with our suppliers to achieve net zero

176 Looking ahead

**The right thing to do**

The climate crisis, as acknowledged by the international community, threatens all livelihoods, but especially those who are most vulnerable, exacerbating inequalities. It impacts human rights, biodiversity, water access, global health, and food security and exacerbates environmental changes such as ecosystem degradation, drought, flooding, and desertification. While science tells us that climate change is irrefutable and unavoidable, it also tells us that it is not too late to limit global warming to the 1.5 degrees Celsius threshold that is considered the limit beyond which climate impacts will be catastrophic. Achieving this goal will require fundamental transformations of critical aspects of society—including how we grow food crops, use land, transport goods, and power our economies. The great challenge of our times is to find a way to effectively align the public and private sectors to take critical action and put aside existing siloed approaches and objectives.

The business case

For a business like ours—with a diversified agricultural supply chain sensitive to climate changes—abrupt climate variations can have a profound impact on the secure supply of our raw materials.

It may also threaten facilities and operations, transportation, and distribution chains, as well as access to power networks and water. Beyond endangering physical infrastructure and supply chains, the impacts of climate change and its effects on biodiversity loss and water insecurity—among others—undermine progress and business growth by exacerbating systems-level disruptions for customers, investors, employees, and communities. Against this backdrop, it is essential for us to strengthen our mitigation efforts and our resilience to climate impacts. This includes reducing our greenhouse gas (GHG) emissions, thereby increasing efficiency and energy savings, which in turn results in fewer inputs used over outputs and better profitability. It also means taking steps to apply innovative low-carbon technologies, which require higher investments upfront but offer meaningful emissions reductions and payback over the medium to long term. It is also key for us to voice support for effective national and global climate policies, which inject more certainty into short- and long-term planning and investment and position us to better anticipate regulatory risks and seize economic opportunities.

OUR ASPIRATIONS

(SI) Sustainability Index

2023

Zero

coal used as curing fuel for the tobacco we source

2025

Carbon neutral (SI)

carbon neutrality in our direct operations (scope 1+2)

2030

35%

reduction in absolute GHG emissions in our tobacco supply chain versus 2019 baseline

2040

50%

reduction in absolute scope 1+2 GHG emissions versus 2019 baseline (SBT)

50%

reduction in absolute scope 3 GHG emissions versus 2019 baseline (SBT)

50%

reduction in absolute scope 1+2+3 GHG emissions in our tobacco supply chain versus 2019 baseline

Net zero

GHG emissions in our value chain (scope 1+2+3)

100%

of our manufacturing facilities certified carbon neutral

25% (SI)

reduction in absolute scope 3 GHG emissions versus 2019 baseline

100%

of electricity used and purchased in our factories derived from renewable sources

Our management approach

Our climate strategy aims to address pertinent climate change risks and build resilience while seizing opportunities presented by a low-carbon future. To deliver on our climate ambition, we rely on robust carbon footprint accounting, analysis of climate change-related risks and opportunities, ambitious mitigation targets, clear management and governance structures, and key enablers such as our internal carbon pricing.

We accelerated our decarbonization ambitions in 2021. [We now aim to achieve carbon neutrality in our operations \(scope 1+2\) by 2025 and net zero emissions across our entire value chain \(scope 1+2+3\) by 2040.](#)

To deliver on those ambitious goals, we prioritize reducing absolute carbon emissions. We do so by optimizing efficiency and reducing consumption while minimizing the use of fossil fuels and promoting the switch to renewable energy (by procuring green electricity and installing technology to self-produce or store green energy).

Our work to reduce absolute emissions is guided by science-based targets aligned with a scenario of an increase in global temperatures of no more than 1.5 degrees Celsius above pre-industrial levels. Our targets, approved by the Science Based Targets initiative (SBTi), commit us to reducing our absolute scope 1+2 GHG emissions by 50 percent by 2030 versus our 2019 baseline, and to reducing our absolute scope 3 GHG emissions by 50 percent within the same timeframe.

Moreover, our commitment to net zero emissions (scope 1+2+3) by 2040 is undergoing validation by SBTi at the time of writing this report.

[Once we have maximized our emissions reductions, we compensate for the remaining unavoidable emissions. We prioritize investing projects in our supply chain when possible and purchase certified carbon credits when needed.](#) Our portfolio of climate investments brings both standardization and sophistication to our approach to compensation.

Our decarbonization efforts cover our entire value chain, which extends from the supply of tobacco and other materials to the production, packaging, commercialization, use, and end-of-life stage of our products. Guided by our GHG footprint model, we have specific mid-term targets and strategies in place that account for our most significant impacts on climate.

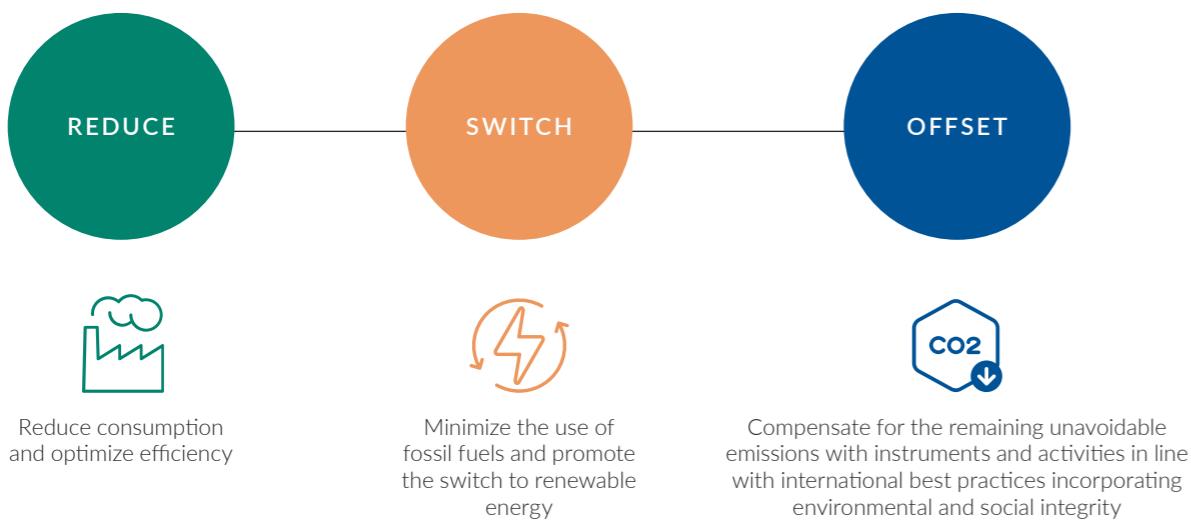
We use internal carbon pricing to incentivize and drive reductions in GHG emissions. We implement a shadow price to internalize environmental costs and factor them into investment decisions. And we use an internal carbon levy as an incentive to reduce GHG emissions and a way to generate funding for solutions to compensate for unavoidable emissions.

Several corporate policies guide our approach to decarbonizing our operations and value chain. The reduction of energy consumption and carbon emissions is embedded in our [Environmental Commitment](#), our [Guidebook for Success](#) (PMI's code of conduct), our [Responsible Sourcing Principles](#), and our [Good Agricultural Practices](#) program. Our [Zero Deforestation Manifesto](#) covers our sustainable forestry management, which contributes to climate regulation and carbon sequestration. Further, our [Sustainable Design Framework](#) guides the integration of eco-design and circularity principles and efforts to minimize the carbon footprint of our smoke-free products. These policies are complemented by internal Principles & Practices and operational standards, such as our Global Fleet policy.

We periodically conduct a climate change risks and opportunities assessment across our value chain. The findings inform PMI's overall risk management approach and help us to better integrate climate-related issues into our overall risk mitigation response and decision-making processes. This work aligns with international expectations such as those of the Paris Agreement to mitigate and adapt to climate impacts, as well as the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

Our governance and management systems help ensure that climate-related risks and opportunities are considered in relevant decision-making processes (read more about our governance arrangements [here](#)). Our Senior Vice President, Operations, a member of Company Management, is tasked with addressing climate change risks across all company activities. He monitors and reviews progress against objectives, strategies, and action plans related to climate change and reports findings to the Nominating and Corporate Governance Committee and the Audit Committee of PMI's Board of Directors. The SVP, Operations also ensures that risk assessment and management of issues related to climate change are integrated into long-term plans, objectives, budgets, and performance review processes. From an operational standpoint, our Operations, Combustible Category, Smoke-free Category, and Finance functions coordinate the company's climate change-related activities.

Our three-pronged approach to decarbonization



PMI's Low-Carbon Transition Plan

Our [Low-Carbon Transition Plan \(LCTP\)](#), published in October 2021, provides a transparent and detailed view of how we plan to achieve our climate ambitions, how we will measure success, and how we will report on progress. It describes the various tools and enablers—including our approach to carbon pricing, our portfolio of climate investments, and our governance and management arrangements—that will help us deliver on our climate targets. We believe that transparency drives action, accountability, and change. By openly sharing our objectives and methodologies in our LCTP, we seek to accelerate the achievement of our ambitious net zero and low-carbon targets and commitments (see an overview of our timeline [here](#)).





We incentivize relevant employees through monetary rewards or other forms of recognition for the successful implementation of climate-related initiatives (read more about our executive compensation [here](#)) and seek to raise awareness among our entire workforce of climate change impacts through regular internal communications and training. Moreover, our selection criteria take into consideration the transparency of the suppliers of direct materials in disclosing their emissions factors and demonstrating significant carbon intensity reductions.

The urgent and monumental task of combating climate change cannot be accomplished by solo operators; it requires the input and collaboration of partners across the public and private sectors. PMI collaborates with, supports, participates in, and is a member of sustainability-related initiatives and organizations that harness the power of collaboration to implement solutions at scale. Among other collaborations, we participate in three World Business Council for Sustainable Development (WBCSD) working groups: Climate Smart Agriculture (Scaling Positive Agriculture), Nature Action, and the Forest Solutions Group.

We are also a signatory to the Business Ambition for 1.5°C commitment—having responded to a call-to-action for companies to step up their ambitions for the best chance of tackling the climate crisis. Moreover, in 2021, we [publicly declared](#) our support for the TCFD and its recommendations. Our affiliates also belong to national business associations that are engaging with governments to advance progress on climate protection at the local level.

The robustness of our commitments is reflected in our achievement of an “A” score in each of the past eight years on CDP’s climate change disclosure—a recognition of PMI’s action to combat climate change and transparently report on its activities.

Progress in 2021

Urgent action is needed to tackle climate change. As a major multinational corporation with many stakeholders around the world, we are increasing the pace of our initiatives to mitigate climate impacts through emissions reduction measures and bolstering our business's resilience.

Overview of our carbon footprint in 2021

Accurate measurement and transparent reporting of our carbon footprint help us to shape our strategy, set targets, and measure progress. We calculate our GHG footprint annually, following guidance from the Greenhouse Gas Protocol and accounting for all emissions generated across our value chain (read about how we calculate our GHG emissions [here](#)).

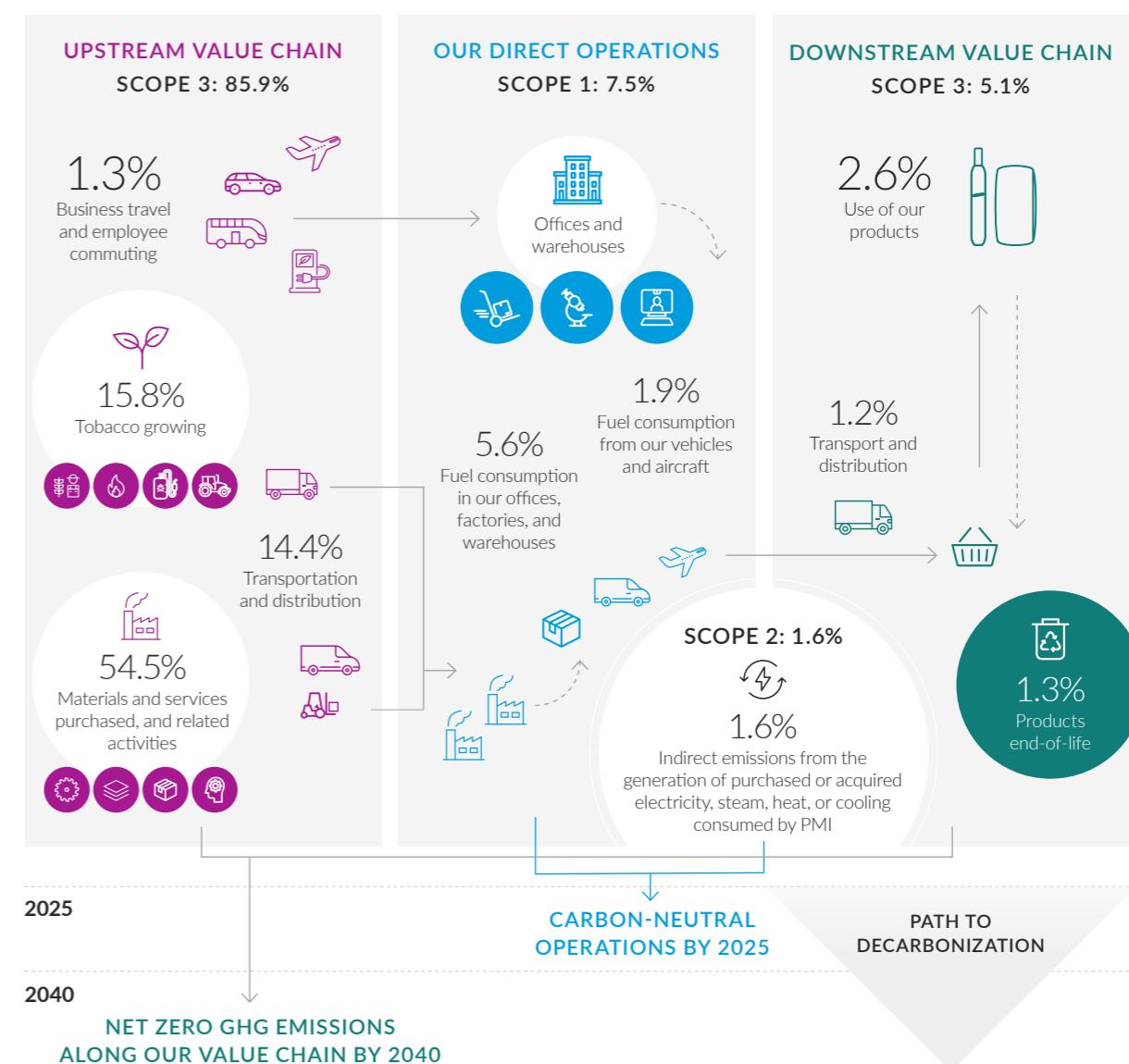
While we consider it vital to improve the environmental performance of our direct operations (including our factories, offices, and fleet), most of our carbon footprint is generated in scope 3 of our value chain. Consequently, working collectively with tobacco growers, suppliers, retailers, NGOs, local communities, and governments is crucial to attaining our environmental goals.

Our upstream emissions represented 85.9 percent of our total GHG footprint in 2021. Sources of these emissions included curing and fertilization in our tobacco supply chain, the acquisition and transport of materials used in the manufacture of our products, the procurement of indirect materials and services necessary to run our business activities, third-party disposal and treatment of waste, and business travel and employee commuting, among others.

Downstream, emissions generated by the transport and distribution, use, and end-of-life management of our products represented 5.1 percent of our total footprint in 2021. Emissions related to the use and end-of-life management of our products are slowly but steadily decreasing, mainly due to improvements in our heated tobacco units and device design (read more [here](#)).

Overall, in 2021, our emissions decreased in absolute terms by 1.7 percent across our value chain versus 2020, amounting to a total reduction of 84,000 tons of CO₂e. More specifically, we achieved an absolute reduction in scope 1 emissions of 4.3 percent, in scope 2 of 28.9 percent, and in scope 3 of 1.2 percent versus 2020.

Carbon emissions along our value chain in 2021



Presentation of information aligns with guidance of the Greenhouse Gas Protocol. Figures are rounded.

Accelerating our efforts toward carbon neutrality in our operations

Our sites and fleet are the parts of our value chain over which we have the greatest control. To achieve our ambition of carbon neutrality in our direct operations by 2025, we combine good management practices with strategic energy-related investments. We invest in optimizing energy and process efficiencies and replacing fossil fuel-based energy with renewable sources. We compensate for our absolute carbon emissions as a last resort—once we have maximized our emissions reduction.

Decarbonizing our factories

Reducing carbon emissions in our manufacturing sites relies first and foremost on promoting efficient energy use. We achieve this through our Drive 4 Zero program, which establishes a common way of working across our factories, advances a zero-loss mindset, and empowers employees to identify and implement improvements. In addition to enhancing energy efficiency, this program offers environmental benefits such as reduced water consumption and waste. With regard to energy use, the program triggered more than 200 projects worldwide in 2021, including, for example, the optimization of compressed air, steam, and cooling systems, heat-recovery projects, LED lighting, and electric motor replacement. We also look at opportunities to leverage technology to deliver significant carbon savings. For instance, in 2021, we deployed across all our manufacturing sites a new learning algorithm that allowed us to upgrade our ventilation and air conditioning system, decreasing the energy required to release the same humidity and temperature factory conditions by around 20 percent.

In parallel, we are continuing our gradual switch to renewable energy sources. We implement technologies to generate renewable energy, such as photovoltaic panels, biomass boilers and heat pumps, and tri-generation processes (combining cooling, heat, and power).

For example, in our factory in Switzerland, the pyrolysis technology installed in 2020 allowed us to use operational waste instead of fossil fuels to produce steam and hot water; we are currently fine-tuning our pyrolysis setup, which is expected to deliver significant carbon reductions in the years to come. Meanwhile, in Portugal, we completed the installation of a solar carport at our Tabaqueira factory, which we expect will reduce carbon emissions by up to 828 tons per year.

Worldwide, 7 percent of the energy used in our factories in 2021 was self-generated by innovative technologies (2020: 2 percent). To increase this proportion, we developed an internal tool during 2021 that creates a portfolio of zero-carbon technologies and assesses them against specific risks and attributes.

This tool will help us select and implement the most impactful solutions across our manufacturing sites. We are also considering the establishment of direct power purchase agreements with large-scale solar, wind, hydro, and geothermal installations and small-scale hydropower schemes.

In 2021, 81 percent of the electricity used in our factories came from renewable sources (up from 78 percent in 2020), and we are on track to achieve our target of 100 percent by 2025.

Our efforts to enhance efficiency and switch to renewables offset the increased energy required to produce our smoke-free product consumables compared with cigarettes (the extra energy required is mainly due to the additional steam needed in the manufacturing process). Indeed, our efforts in 2021 led to an overall reduction of around 12 percent in our absolute GHG emissions in our factories versus 2020, approximately half of it driven by our efficiency initiatives and the remaining half by our switch to renewable energy sources.

During the year, we certified three additional sites in the Czech Republic, Mexico, and Portugal as carbon neutral, bringing the total to five factories certified to date. We are well on track to certify all our manufacturing sites by the end of 2025.

Fostering carbon neutrality in our fleet

Our fleet of nearly 22,000 vehicles registered over 380 million kilometers driven in 2021. Most (80 percent) of our fleet vehicles are working tool vehicles, used primarily to visit point-of-sale locations and distribute our products, with the rest being benefit cars.

Following the development of our carbon neutrality strategy for our fleet in 2020 and the strengthening of our organizational capabilities with the setup of our fleet center of expertise, we instituted a new Global Vehicle Fleet policy early in 2021. This policy frames our fleet strategy and moves us to a more centralized operating model to help ensure that every PMI affiliate contributes to our global goal of becoming carbon neutral (scope 1+2) by 2025.

To reduce carbon emissions in our fleet, we invest in sustainable powertrains and effective driving to optimize energy consumption while improving operational efficiency.

During 2021, we selected more environmentally friendly powertrains such as hybrid and electric vehicles to guide the renewal of our fleet. We anticipate these new vehicles will emit 40 percent less carbon emissions than the models they replaced. Since rolling out our policy, more than 40 percent of approved models are powered by sustainable alternatives; this includes all of the newly approved models in the major markets of Australia, Canada, Europe, and New Zealand. We will remain focused on retiring our most polluting cars subject to the availability of appropriate infrastructure, legislation, and technological innovation.

By the end of 2021, vehicles with sustainable powertrains (electric or hybrid) represented 10 percent of our fleet globally (2020: 5 percent).



We leverage eco-training and telematics to improve driver behavior and further engage employees in our sustainability agenda. By the end of 2021, one-third of company drivers were enrolled in the first year of our fleet safety e-learning program, which incorporates eco-driving modules. We expect all drivers to enroll by the end of 2023. Of the group offered this training, 70 percent participated in the course. We anticipate the participation rate will climb to 85 percent in 2022. Nearly half (47 percent) of our working tool cars are equipped with telematics—a technology that provides the driver and company with data on driving behaviors to improve road safety and decrease carbon emissions (2020: 35 percent).



Reducing GHG emissions in our offices and warehouses

We have offices and warehouses in more than 80 countries worldwide, most of which we lease rather than own. Together, they accounted for 1 percent of our total carbon footprint in 2021.

During the year, we continued to gain visibility into energy use at those sites and prepared action plans to optimize energy consumption and promote the switch to renewable sources. We strengthened our capabilities to collect accurate environmental data for all our offices and warehouses, up from a third of them in 2020, extending accurate data collection to over 400 locations worldwide. And we continued to define minimum energy efficiency expectations for office equipment in the markets where we have initially targeted carbon neutrality. We plan to extend these expectations to additional markets by the end of 2022.

Overall, carbon emissions from our offices and warehouses decreased by 46 percent versus the 2019 baseline, continuing the positive trend from 2020. This is due, in part, to awareness campaigns, more accurate internal emissions reporting, and reduced office use due to COVID-19 restrictions and precautions.



Pricing carbon

Assigning a price—and hence a theoretical cost—to emissions makes the intangible tangible and further incentivizes action to reduce the emissions that contribute to global warming.

PMI reviewed its carbon pricing policy in 2020 and took a pioneering approach by developing two complementary internal carbon pricing instruments: a shadow price of USD 65 per ton of CO₂e and a carbon levy of USD 8 per ton of CO₂e.

Our shadow carbon price is integrated into the preparation and financial evaluation of business proposals that will impact our carbon emissions. This was instrumental in helping justify the approval of eight carbon emission reduction projects in 2021.

While the shadow price helps prioritize the business case for investments in activities aimed at structurally reducing carbon emissions, our carbon levy helps determine the investments required to abate our emissions through offsetting or insetting initiatives.

The levy is designed to internalize costs and support behavioral change by imposing a virtual internal tax on selected business units for their GHG emissions. This helps us determine a budget for a portfolio of climate investments dedicated to projects focused on nature-based solutions and community investments in markets relevant to PMI's supply chain and to our global environmental strategy. These projects aim to generate high-quality carbon insets with co-benefits such as biodiversity protection, water stewardship, and livelihoods development.

We revise our shadow price and carbon levy annually to reflect changes in our risk and emissions profiles.

Setting up our Portfolio of Climate Investments

In 2021, we created a Portfolio of Climate Investments (PCI) to standardize and provide transparency on our approach to investments in offsets and insets. Such investments compensate for unavoidable carbon emissions related to our direct operations and are essential to achieving our 2025 carbon neutrality goal.

To ensure management's endorsement and alignment with the mid-term strategy of the company, the PCI is supervised by an advisory committee composed of cross-functional PMI senior leaders (including our Chief Sustainability Officer and SVP, Operations, among others). The committee revises and validates the proposals prepared by the project team and approves the allocation of resources to the proposed climate solutions through an investment strategy that leverages the budget generated by PMI's carbon levy scheme.

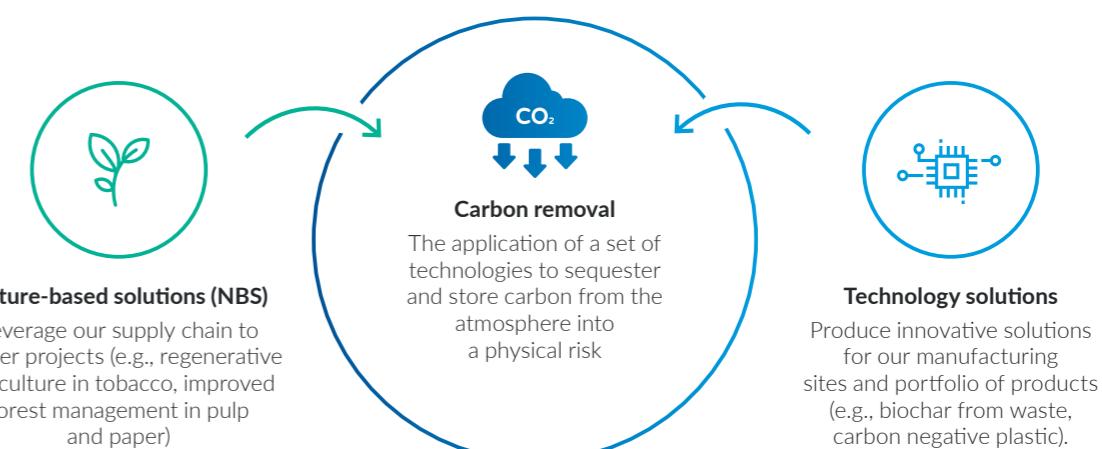
To support decarbonization efforts, PMI believes that limiting the use of market approaches (offsetting) in the short-term by prioritizing direct investment in our supply chain in the medium and long term (insetting) will result in a climate investment strategy that is cost-effective, transparent, consistent, and of high quality. We expect a higher annual budget in the first years of running the PCI, in line with PMI's business emissions profile, to support investments in a long-term climate solution. The financial requirements of PMI's PCI are expected to decrease once medium- and long-term scope 1+2 carbon reduction investments become operational and generate emissions reductions or removals.

We also anticipate a decrease in the levy budget as our emissions profile shrinks. Where additional funding will be required for specific investments (e.g., unlocking innovative climate solutions and R&D), the advisory committee that governs the PCI will decide on approval.

A set of mechanisms and rules—the PCI quality criteria—allows PMI to efficiently evaluate which climate solutions are most appropriate to pursue. Core carbon principles and additional attributes strongly support the development of nature-based solutions in PMI's supply chain that generate benefits beyond carbon reduction or removal, such as ecosystem conservation and enhancement and positive impacts on local communities. To assess whether an investment will meet our quality criteria and generate a positive impact, we employ an external due diligence process managed with a proprietary methodology developed with PMI's carbon finance adviser Clarmondial. This methodology considers GHG mitigation, biodiversity conservation, and community benefits. Clarmondial also supported PMI in establishing relationships that can support the company's long-term climate, community, and nature-related targets in priority countries.

In 2021, PMI's PCI invested over USD 4 million in projects in Brazil, Laos, Malawi, Mozambique, and Uganda, with a focus on forest protection, reforestation, and the enhancement of quality of life through activities such as the provision of clean water access. Moreover, the PCI focused on securing high-quality offsets to support PMI's decarbonization journey, and provided the required carbon offsets for the five manufacturing sites that achieved carbon neutrality certification during the calendar year.

Scaling deployment of carbon removal technologies will be key for PMI to achieve its 2040 net zero ambition



Leading carbon reduction in our tobacco supply chain

Our tobacco supply chain represented around 20 percent of our total carbon footprint in 2021, with emissions generated mainly by the use of fertilizers, the process of curing tobacco, and mechanization.

In line with PMI's 2040 net zero ambition and our 2030 science-based target trajectory, we are committed to achieving an absolute reduction in carbon emissions in our tobacco supply chain of 35 percent by 2025 and 50 percent by 2030 versus our 2019 baseline. To deliver on these targets, we continue deploying efforts to decarbonize the tobacco curing process while implementing additional reduction initiatives focused on the use of fertilizer and mechanization.

Decarbonizing tobacco curing

We mainly source three types of tobacco: Virginia, Burley, and Oriental. While Burley and Oriental tobaccos, once harvested, are air- and sun-cured to dry out the leaves, Virginia tobacco (which represents close to half of our purchased volume and is sourced across 12 markets) is generally cured using an external heat source—a process called “flue-curing.” Curing barns can be heated with coal, diesel, natural gas, firewood, or biofuels containing agricultural or wood-sawing by-products.

The GHG emissions of flue-cured tobacco represented 4 percent of our total carbon footprint in 2021 and close to a quarter of the total GHG emissions generated in our tobacco supply chain.

Having achieved a 77 percent reduction in GHG emissions per kilogram of flue-cured tobacco between 2010 and 2020, we are now committed to a further 75 percent reduction in emissions generated by curing one kilogram of flue-cured tobacco by 2025 (versus our 2019 baseline). To deliver on this ambitious target, we focus on improving curing-barn efficiency and increasing the use of renewable fuels. We made good progress in 2021, achieving a 64 percent reduction in emissions per kilogram of tobacco from flue-curing versus 2019.

In 2021, an external partner audited our suppliers, mostly remotely due to COVID-19 restrictions on travel and partially on-site where conditions allowed. These audits covered all flue-cured origins to verify carbon reduction activities and data on fuel use per kilogram of tobacco cured.

Improving curing barn efficiency

As most farmers own their curing barns, we collaborate with them and our suppliers to provide guidance and support to make the barns more thermal-efficient. We support improvement projects, which typically aim to enhance combustion efficiency, ventilation, heating control, and insulation. In 2021, the improvement projects we carried out increased the efficiency of 11,181 barns—adding to a cumulative total of around 94,000 barns upgraded since 2014 across 13 countries.

In parallel, we continued to deliver training to farmers through our suppliers on fuel efficiency, barn maintenance, and fuel sustainability.

Increasing the use of renewable fuels

To reduce GHG emissions, we are gradually phasing out fossil fuels such as coal and diesel in favor of renewable fuels, including sustainable firewood and biomass. Our Monitoring, Verification, and Reporting Framework for Sustainable Leaf Curing Fuels (MVR) allows us to systematically monitor the sustainability of all fuel types used in our tobacco supply chain.

In 2021, we exceeded our target of having 70 percent of our purchased flue-cured tobacco cured with renewables, achieving 75 percent.

Progress was driven primarily by our work to ensure that the firewood and other wood-based materials used to cure the tobacco we purchase do not contribute to the deforestation of natural primary forests. Our MVR enables us to assess the risk of deforestation represented by different wood fuels, collect sourcing information on the wood fuels farmers use to cure tobacco, and cross-check that those sources have forest management plans in place highlighting the traceability of the forest products and the application of sustainable forestry practices.

In 2021, 100 percent of the tobacco we purchased was cured with no risk of deforestation of primary or protected forests. Read more about our forestry management ambitions and progress [here](#).

Another driver of progress is our continued focus on the phase-out of coal via the conversion of curing infrastructures to enable the switch to renewable fuels. In 2021, 3 percent of the flue-cured tobacco we purchased was cured with coal (down from 11 percent in 2020); all of it originated from the Yunnan and Guizhou provinces of China. In those regions, we continued to support the multistakeholder initiative, led by the China National Tobacco Corporation, to convert curing barns from coal to biomass and create a fuel pellets supply chain produced from agricultural waste. Local communities are playing a vital role in the project, having created a network of pelletizing plants sufficient to provide enough bioenergy to support both the tobacco supply chain and the needs of local infrastructure such as public buildings. In 2021, 85 percent of the tobacco we purchased from China was cured with biomass, up from 49 percent in 2020. We remain committed to eliminating coal from our curing fuel portfolio by the end of 2023.

Reducing GHG emissions from fertilizers

In 2021, emissions related to the use of fertilizers in tobacco production contributed to 8.5 percent of PMI's total carbon footprint.

Nitrogen-based fertilizers are essential in commercial agriculture to assist farmers in achieving appropriate yields. Continuous decrease of fertilizer application is challenging, therefore we are addressing fertilizer emissions from different angles. The drivers that will help support emission reductions globally include the preference in volume allocation to markets using fertilizers more efficiently, the increase in input-output efficiency, and the gradual decrease in our overall tobacco demand.

We are working on providing guidance for selecting fertilizer providers taking into consideration their manufacturing emissions. We are also exploring innovative technologies that could curb field emissions from nitrogen-based fertilizers. In particular, we will test the impact of improved irrigation techniques on nitrogen volatilization and evaluate the difference in emissions that small changes in timing of application of the fertilizer can trigger. Additionally, we seek to optimize the use of fertilizer. This requires us to better manage the portion of applied fertilizers that is not taken up by the crop and therefore causes nitrogen volatilization.



Insetting in our tobacco supply chain to compensate our direct emissions

We want to promote insetting by implementing nature-based solutions in our tobacco supply chain. This allows us to compensate for unavoidable emissions generated by our direct operations while also advancing the well-being and socioeconomic development of tobacco-farming communities and creating co-benefits such as more resilient ecosystems and improved safe water access for our farming communities.

In 2021, using the two sets of quality criteria defined by the PCI for project selection—the eight core principles and the five PMI-specific additional attributes—we identified an insetting project for our supply chain in Mozambique. We worked with our tobacco supplier and a global carbon project developer with a presence in the country to strengthen our feasibility study and understand the needs of rural communities linked to our tobacco sourcing in more detail. We assessed the improvement interventions (including the distribution of cook stoves and the drilling of boreholes) in the supply chain against the potential for carbon insetting generation.

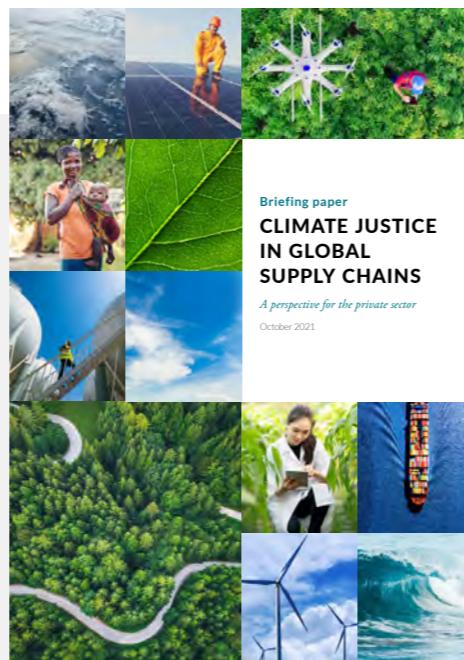
In designing activities, we prioritized co-benefits such as the creation of safe drinking water access points in line with our WASH approach and the contextual protection of natural forests that are providing ecosystem services to the rural communities included in the project feasibility phase. We expect implementation of the project to begin in 2022.

A second project is under assessment in Argentina, where our farmers in the regions of Jujuy and Salta rely partially on firewood to cure Virginia tobacco. Leveraging the multi functionality of natural managed forest and the concept of ecosystem corridors, we conducted a preliminary assessment based on the provision of multiple services linked to forest restoration. To ensure the resiliency of the forestry landscape in a context where ecosystem services are not monetized, we have targeted value generation. We have focused on the projected production of sustainable firewood in line with our MVR requirements and the generation of biodiversity and water benefits while testing an impact assessment model that can provide a dollar figure for the improvements achieved at the ecosystem level. This approach is in line with the holistic view of the natural managed forest we aim to pursue in our forest restoration.

Climate justice in global supply chains

Sustainability issues do not occur in a vacuum (read more [here](#)). Building on our 10-year experience of developing and implementing programs, especially in our agriculture supply chain, we have witnessed how climate change exacerbates human rights issues including social inequalities and disproportionately affects the most vulnerable. The climate crisis concretely impacts human migration, access to water, global health, agriculture productivity, and food security, among many other issues affecting our collective livelihood.

In 2021, we tasked Article One, our human rights advisers, with preparing a [briefing paper](#) to allow us to better understand how climate change and human rights impacts intersect. Understanding those synergies is an essential step in developing coherent and inclusive strategies.



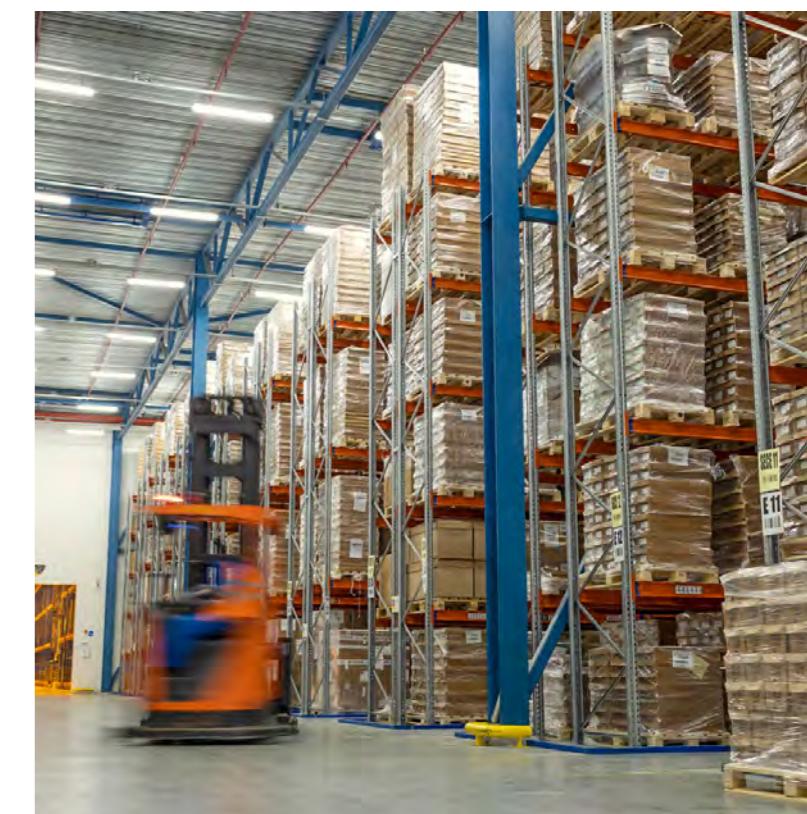
Joining forces with our suppliers to achieve net zero

With a significant portion of our GHG emissions arising from our non-tobacco supply chain, engaging with our suppliers to contribute to their transition toward a net zero economy is at the heart of our approach.

Beyond tobacco, the materials and services we purchased in 2021 generated around 54 percent of our company's total carbon footprint. Our most carbon-intensive supplies (representing 40 percent of our non-tobacco supply chain emissions in 2021) are the direct materials used in the manufacturing of our products, such as cellulose acetate tow, pulp and paper, and our smoke-free electronic devices.

We know it will take time to work with our suppliers to identify and implement appropriate carbon emissions reduction initiatives. As a first step, in the past couple of years, we focused on intensive engagement with key suppliers of direct materials. This work allowed us to collect primary carbon data and understand our suppliers' GHG emission reduction programs and targets. In 2021, we witnessed among our suppliers a heightened understanding of their climate impacts, in particular with regard to their supply chains' emissions. We attribute this to the efforts we initiated in 2020 coupled with growing societal expectations around climate change. Our engagement efforts have allowed us to develop a roadmap for carbon reduction to 2025.

Another way the direct materials used in our products can negatively impact our carbon footprint is through association with commodity-driven deforestation. We aim to lead the shift toward a more environmentally sustainable pulp-based materials sector by following the tenets of our [Zero Deforestation Manifesto](#). Read more about our commitments and progress in 2021 [here](#).



Our decision to accelerate our ambition to achieve net zero emissions along our value chain by 10 years—moving our target from 2050 to 2040—means we must double our efforts to encourage and support our suppliers in reducing their emissions. With this in mind, we announced a new target in 2021 for all our critical suppliers to adopt science-based targets aligned with the 1.5-degree pathway. Since 2019, we have piloted this engagement with two electronic suppliers in close collaboration with CDP China, resulting in their targets being recently approved by the SBTi.

Overall, in 2021, emissions from our non-tobacco supply chain decreased by 12 percent versus our 2019 baseline. In recognition of our actions and strategies to reduce emissions and lower climate-related risks in our supply chain, CDP placed PMI on its Supplier Engagement Leaderboard in 2021 for the fifth consecutive year.



Looking ahead

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We are proud of the level of sophistication and ambition achieved to date by our climate strategy and by the capabilities of our organization in this field, and aim to remain at the forefront of the climate neutral agenda. Conditions today are uniquely favorable to accelerate decarbonization actions and projects, to reduce our overall carbon footprint and to increase our supply chain resilience by managing climate-related risks proactively and seizing increasing opportunities in the low-carbon economy. To achieve this, we believe in the power of strong ambitions, bold strategies, and investments in innovative technologies.

To bolster our efforts and create a sound governance context internally, we also plan to revise our shadow price and carbon levy in 2022 in order to better reflect the changes in risk and emission profiles.

We are highly committed to playing our role in the decarbonization of our society through actions guided by our science-based targets. We will continue to research and develop innovative solutions, explore new technologies, invest with impact to foster more and better innovation, and inspire all our people and our business partners to join us in this journey. Our learnings will be theirs to build upon, to drive a successful low-carbon transition, together.

Massimo Andolina, Senior Vice President, Operations

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In 2022, we plan to reassess climate change-related risks and opportunities in line with a 1.5 degrees Celsius scenario and the recommendations of the Task Force on Climate-related Financial Disclosures, updating the assessment we conducted in 2018–2019.

We will also intensify our investment in developing tailored projects as part of the PCI strategy, in line with our expectation to trigger value on the ground by running carbon projects directly with partners in our supply chain. Through the PCI technological removal strategy initiative, we will explore the carbon tech space by investigating emerging solutions that could bring innovation and market access to carbon direct removal. Technological removals will be further expanded in our tobacco supply chain, where we aim to finalize the assessment of the potential and feasibility of biochar-based carbon sequestration within selected farming communities.

In our factories, we will continue to implement energy efficiency initiatives and increase the share of renewables in our energy mix. We plan to certify additional manufacturing sites as carbon neutral by the end of 2022. Building on results to date, we will continue to deploy digital and artificial intelligence solutions in our manufacturing sites to deliver additional carbon savings.

In our tobacco supply chain, we aim to further reduce emissions through continuous improvements in tobacco flue-curing (through efficiency efforts and further adoption of renewable fuels) and additional initiatives related to fertilizers and mechanization to increase crop productivity and consequently reduce emissions intensity. We will monitor the implementation of our insetting projects and explore other opportunities to deploy high-quality nature-based solutions in other tobacco-growing geographies.

During the year, we will refine our approach to helping critical suppliers set science-based targets.

To further deploy fleet carbon neutrality programs, we plan to continue focusing on eco-driving behaviors through telematics and awareness campaigns and training. In 2022, we will continue to renew our fleet, accelerating the switch from internal combustion engines to more environmentally friendly powertrains such as hybrid and electric vehicles. We will also continue our efforts to minimize the carbon footprint of our offices and warehouses, and we expect to certify our first carbon neutral markets.

In parallel, we will continue driving carbon reduction through diligent eco-design of our products.

Claudia Berardi, Director, Environmental Sustainability, PMI Operations



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OPERATIONAL IMPACT

Preserve nature

Natural capital is a wealth we all share and depend on. It is essential that we protect, sustainably manage, and nurture it.



CONTENTS

- 180 Our management approach
- Progress in 2021
- 181 Halting deforestation
- 185 Managing water responsibly
- 189 Reducing waste
- 191 Preserving natural ecosystems
- 193 Looking ahead

The right thing to do

We collectively depend on soil, land, forests, and water, which provide resources and services critical to human existence. Moreover, a healthy natural ecosystem plays a vital role in tackling climate change, with land and oceans absorbing and storing carbon from the atmosphere. Yet biological richness and natural resources are being lost at an alarming rate. Global scientific studies indicate that one million plant and animal species face extinction, thousands of species are already extinct, and several million hectares of natural forest are lost each year despite international efforts to counter the trend. The unsustainable use of natural resources can lead to soil loss and erosion, diminished landscape and recreational value, and a subsequent loss of economic value. Often, it is the world's most impoverished communities that are most vulnerable to the negative impacts of changes in climate, biodiversity, and ecosystem function. Protecting forests and regenerating ecosystems can help prevent the worst impacts of extreme climate events and improve livelihoods.

The business case

Our business activities rely on healthy ecosystems. The degradation and loss of natural capital can cause disruptions and increase production costs. The raw materials used in our products rely on fertile soil, stable climate conditions, and access to water. In our agricultural supply chain especially, even small changes in the balance of ecosystems can lower crop productivity, increase production costs linked to remediation and adaptation measures, and negatively impact farmers' livelihoods. Promoting the efficient use of natural resources and taking steps to protect, preserve, and improve them help manage risks and prepare us to meet regulatory frameworks that may emerge in response to increased awareness of our limited environmental resources, ecosystem degradation, and biodiversity loss. Further, we understand that we all have a responsibility to halt the destruction of natural habitats and are committed to playing our part in helping address this global issue.

OUR ASPIRATIONS

(SI) Sustainability Index

Maintain	Zero gross deforestation of primary and protected forests associated with our tobacco supply chain	100% of tobacco purchased without detection of residues attributable to the use of highly hazardous pesticides
2022	Zero virtually zero production waste to landfills	>70% of flue-cured tobacco purchased cured with renewable fuel sources (self-sufficient firewood or biomass)
2025	Zero virtually zero waste to landfill	3.1 water ratio in our manufacturing facilities (water withdrawn in cubic meters per million cigarettes equivalent)
2030	Zero net deforestation of managed natural forest and no conversion of natural ecosystems in our tobacco supply chain	Net positive impact on forests associated with our tobacco supply chain
	100% of our tobacco-growing areas covered by local water risk assessments (cumulative since 2018)	Zero gross deforestation of primary and protected forest associated with our supply of paper and pulp-based materials
	100% of our manufacturing facilities certified to the Alliance for Water Stewardship (AWS) standard	10 At least 10 million cubic meters of water optimized in our tobacco-growing areas (cumulative since 2019)
		Zero net deforestation of managed natural forest and no conversion of natural ecosystems in the paper and pulp-based products supply chain

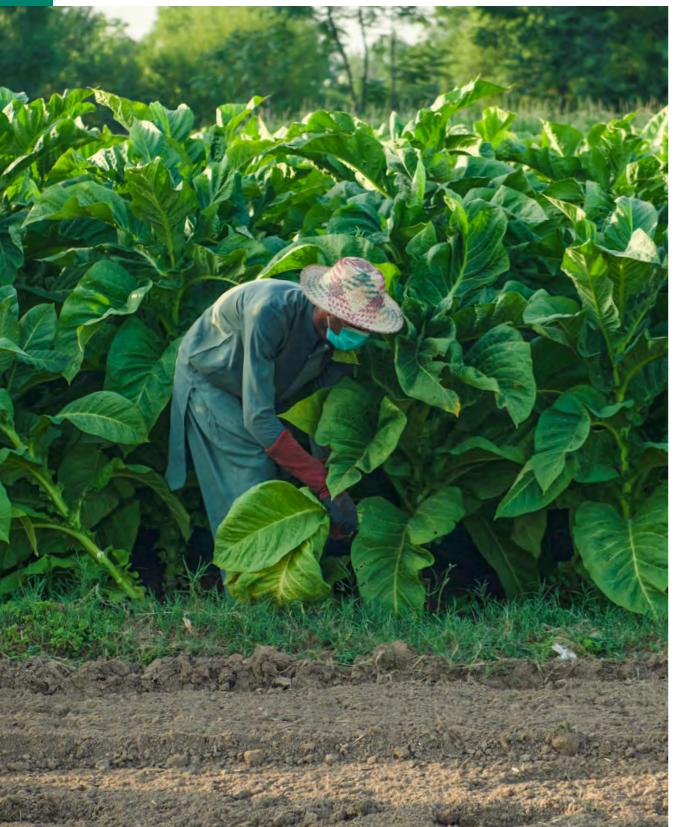
Water and biodiversity: During 2022 we will develop and introduce new KPIs and related aspirations for these two topics.

Our management approach

We are committed to the responsible and sustainable management of natural resources. We understand that forestry management, biodiversity protection, water stewardship, and waste reduction are deeply intertwined. Moreover, robust ecosystems capture and store carbon from the atmosphere, thus playing a key role—alongside efforts to reduce GHG emissions from man-made activities—in combating climate change. We seek to account for those synergies and consider our impacts holistically when designing and deploying our nature-related strategies and programs.

We have set targets and initiatives tied to various aspects of natural capital, with a particular focus on the highest-risk segments of our value chain.

With regard to forestry management in our tobacco supply chain, having achieved zero gross deforestation of primary and protected forests in 2020, we are now raising the bar and are committed to achieving zero net deforestation of managed natural forests and to having a net positive impact on forests by 2025. In our paper and pulp-based materials supply chain, we target zero gross deforestation of primary and protected forests by 2025 and zero net deforestation of managed natural forest and no conversion of natural ecosystems by 2030.



Simultaneously, we are focused on improving water efficiency and protecting the quality of the water returned to the environment from our factories. We are on track to have all our manufacturing sites certified to the Alliance for Water Stewardship (AWS) standard by 2025. Mindful that a significant portion of our water footprint comes from our agricultural supply chain, we have set the ambition to optimize at least 10 million cubic meters of water in our tobacco-growing areas by 2030.

In a world with finite resources, we also aim to reduce the waste we generate, promote its recycling, and responsibly dispose of it. Our short-term target is to achieve virtually zero waste to landfill across all our manufacturing sites by the end of 2022—meaning a landfill diversion rate of 99 percent or greater.

Several corporate policies guide our approach, including our [Environmental Commitment](#), [Responsible Sourcing Principles](#), [Good Agricultural Practices](#), [Zero Deforestation Manifesto](#), and [Water Stewardship Policy](#).

We routinely conduct global and local risk assessments to evaluate our impacts on forests, biodiversity, and water, and we prioritize and adjust our actions accordingly.

Our efforts to protect natural capital are overseen by our Senior Vice President, Operations, a member of our Company Management. Our Operations team is responsible for developing and implementing strategies to achieve our ambitions related to forests, biodiversity, water, and waste. Progress on the ground is delivered through close collaboration with our stakeholders, particularly our suppliers.

Protecting nature is a collective responsibility requiring both global ambitions and interventions tailored to local contexts. We collaborate with and participate in several platforms and organizations, such as the World Business Council for Sustainable Development (WBCSD), the Taskforce on Nature-related Financial Disclosures (TNFD), CSR Europe, the International Union for Conservation of Nature's SwissBiz4Nature, and the Alliance for Water Stewardship.

Progress in 2021

Where we operate, we consider the surrounding ecosystems with the goal of minimizing our negative impact.

In addition to recognizing our leadership in environmental transparency and decarbonizing our value chain, CDP has acknowledged our efforts to preserve nature, awarding us an A rating for our work advancing water security and forest protection in 2021. The organization also placed us on its Supplier Engagement Leaderboard in 2021 for the fifth consecutive year.

Halting deforestation

When managed appropriately, forests provide a sustainable source of raw materials—some of which we use in our products and operations—as well as essential services to local communities.

We are committed to achieving a deforestation-free supply chain for our tobacco and paper and pulp-based materials. These supply chains represent the vast majority of PMI's total land use and provide the materials most often linked to the risk of deforestation and the conversion of natural ecosystems.

In early 2021, we reinforced this commitment by issuing our revised [Zero Deforestation Manifesto](#) (ZDM), further aligning it to the Accountability Framework Initiative guidelines and definitions. This will improve transparency and allow us to benchmark the commitments we have set. The ZDM governs our forestry management efforts and is designed to move us toward becoming forest positive. With it, we reinforced our commitment to protect and measure our impact on forests linked to PMI's supply chain. The manifesto establishes the importance of covering both natural forests (i.e., primary and protected forest areas) and natural managed forests (i.e., naturally occurring production forests) in our framework of action and specifies criteria for on-the-ground interventions needed for us to meet our 2025 and 2030 targets.

Protecting forests in our tobacco supply chain

We are committed to working with our tobacco suppliers and farmers to foster and implement sustainable agriculture practices that protect natural capital and enhance livelihoods. In 2021, an external audit of renewable curing fuels carried out in our tobacco flue-cured supply chain confirmed that none of our suppliers poses a risk to primary or protected forests—i.e., that 100 percent of our flue-cured tobacco is purchased at zero risk of gross deforestation. We are working to align natural managed forests with our zero net deforestation requirements, including by establishing traceability to the point of harvest and documenting our sustainable forestry practices. In 2021, 37 percent of our purchased tobacco was externally verified as compliant with the ZDM's net zero criteria.

Assessing deforestation risks in our tobacco supply chain

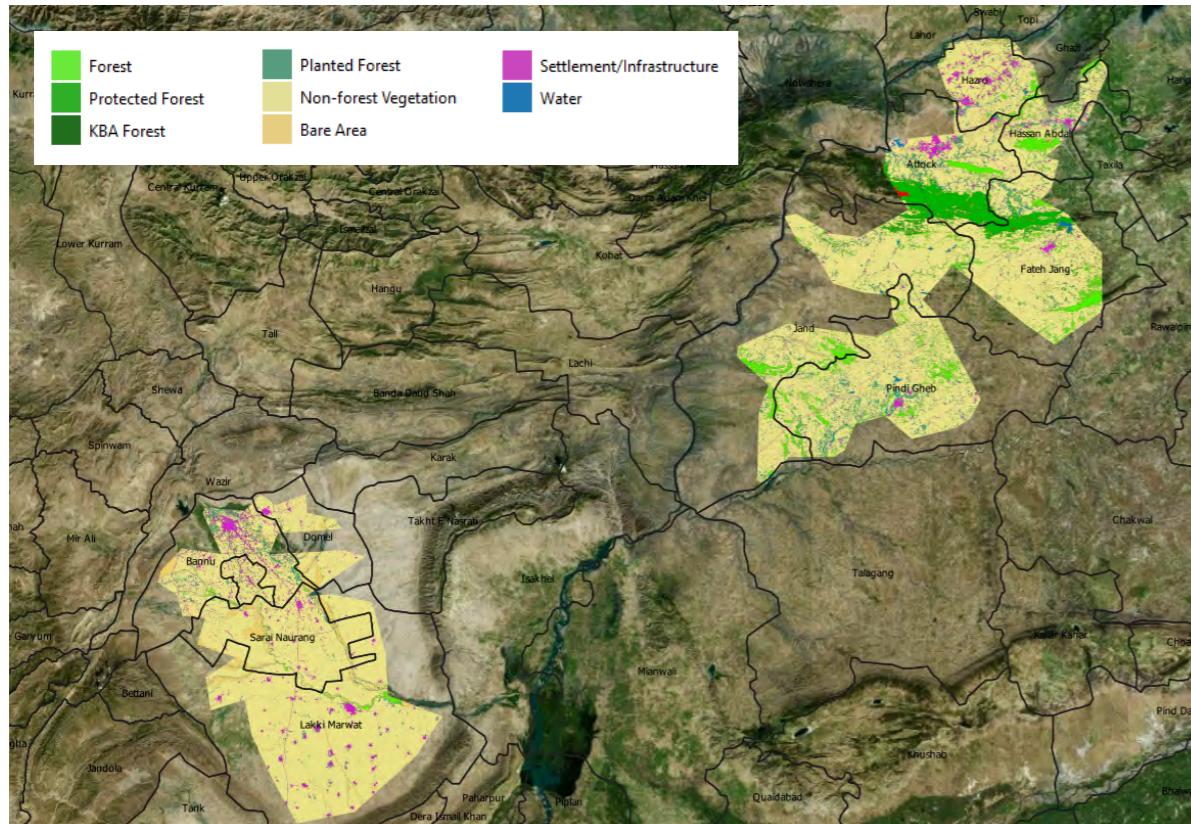
Since 2020, we have used geospatial analysis performed with [Global Forest Watch](#) (GFW) to digitally map forests in our tobacco-growing areas. We have added in-depth assessments with primary input data from satellite imagery coming from [Sentinel 2](#) and [European Space Agency \(ESA\) land cover maps](#). For the granular analysis of attributes beyond the scope of GFW, we have partnered with [Remote Sensing Solutions](#), a Germany-based specialist organization that uses remote sensing to offer solutions in land use classifications and land use changes at a minimum mapping unit of 0.2 hectares. Our spatial assessments cover all tobacco types and all suppliers from which we source across over 40 tobacco-growing areas in 21 countries. We use geographic information system data to pinpoint the farming areas where the tobacco we purchase is grown and then apply a 15-kilometer buffer to each site to account for the potential impact of indirect land use change outside the tobacco cultivation areas. We call this extended zone the tobacco-growing area (TGA). Globally, we monitor deforestation risk on around 57 million hectares of land (a surface roughly equivalent to the size of France). This allows us to focus our on-site audits and activities on those areas where potential risks of deforestation are detected.

Our approach so far has been intentionally broad, to ensure sound due diligence. Based on learnings gathered to date and our growing ability to more precisely monitor and analyze data, we intend to localize the specific impact drivers for each tobacco-growing area on our mapping, restricting our measurement to the area where those impacts actually take place. This means we will become more targeted in our analysis and, consequently, we foresee a decrease in the total area we will monitor for deforestation and natural habitat loss in future years.

Our 2021 annual risk assessment showed a continued need to prioritize the use of sustainable firewood to cure Virginia tobacco and switch to sustainable sources of timber to build barns for the air-curing of Burley tobacco in Malawi and Mozambique.

Beyond this, our 2021 evaluation highlighted potential deforestation risks related to crop diversification in Misiones Province in Argentina, where our granular assessment detected mosaic land use change around the farming area.

Example of land use analysis: Monitoring potential deforestation risks in Pakistan



Land use analysis of the area identified as the firewood sourcing origin area for PMI's flue-cured tobacco in Pakistan (source RSS).

Further, our data revealed the need to account for the specificities of the wood supply chain in Pakistan, where most tobacco farmers source firewood in woodlots outside the parameters of our typical 15-kilometer buffer. The forest districts we monitor in northern Pakistan include dry terrain with sparse vegetation cover, making satellite observation extremely difficult and prone to error. We invested in detailed analysis to precisely determine the forest types within our supply chain (natural protected, natural managed, planted, non-forest vegetation) to cross-check our internal monitoring and external audit results. This revealed that the outcomes of our 2019–2021 land cover satellite assessment were largely in sync with the figures reported for the farmers in our monitoring system, thereby confirming the compliance of the renewable curing fuel program we implemented in Pakistan with our forest protection criteria and requirements.

Land use change

We estimate that approximately 221,000 hectares of land are used to grow the tobacco we source. The surface forest areas that produce wood for biomass and curing fuel represent, by our best estimate, more than 41,000 additional hectares. Both land use figures increased in 2021. This increase is due to changes in our tobacco volumes linked to our sourcing strategy and the expansion of forest areas used for curing fuels, including the increase in biomass use in China in substitution to coal (read more [here](#)).

Risks associated with land use change resulting from tobacco farming are not considered significant. The use of more-productive tobacco seed varieties and the implementation of practices in line with PMI's Good Agricultural Practices (GAP) principles and standards help maximize yield per hectare, improve farmer income, and thus reduce pressure to expand crops into surrounding forests. In light of these trends and the global contraction of the amount of land needed to fulfill our crop requirements, our analysis shows no direct deforestation risk associated with our tobacco sourcing. A 2019 land use change study by Quantis confirmed this, and our analysis of farming areas is consistent with the figures on land use change we calculate annually for our tobacco-growing areas, including forest and natural ecosystems such as peatland, wetland, savanna, and native grassland.

Promoting the switch to sustainable fuels to cure Virginia tobacco

The curing process for Virginia tobacco takes place in barns heated by a variety of fuel sources, including firewood and woody biomass (pellets, woodchips). To mitigate the risk of firewood collection contributing to deforestation, we are increasing the efficiency of curing barns to minimize the use of fuel. We are also deploying our Monitoring, Verification, and Reporting (MVR) Framework for Sustainable Curing Fuels across our entire flue-cured supply chain; the framework requires the traceability of firewood to ensure it originates from sustainable sources. And we encourage the use of agriculture-derived fuels where they do not compete with food production or negatively affect food security. For these reasons, the agrofuels used are primarily by-products of upstream food processing, such as olive pits and fruit stones in Spain and Italy and mulberry prunings in China.

In 2021, we fully embedded the updated requirements and ambitions of our Zero Deforestation Manifesto in our MVR, and we communicated these updates to our tobacco leaf suppliers through a set of tailored guidelines. We use our MVR to systematically monitor the sustainability of all fuel types used in our tobacco supply chain, which includes a requirement to maintain a full chain of custody for the firewood used in the curing process. Data gathered through our MVR are verified by a third party. In 2021, all suppliers of flue-cured tobacco were audited, either with a desktop or on-site audit, across the countries where we source this type of tobacco.

Our efforts have delivered significant progress: In 2021, 75 percent of the flue-cured tobacco we purchased was cured using renewable and traceable fuels (2020: 67 percent). Further, between 2015 and 2021, across our global tobacco supply chain, the average amount of wood used for curing decreased from 5.7 kilograms to 3.9 kilograms per kilogram of cured tobacco, a reduction of 32 percent.

Building live barns for tobacco curing in Malawi and Mozambique

The Burley tobacco we purchase from Malawi and Mozambique is air-cured in barns made of timber, which needs to be replaced regularly, placing forests at risk. To reduce this risk, we promote the use of "live barns," which use living trees as curing poles and remain in place for many years.

During 2021, we partnered with our suppliers to plant approximately 6,000 live barns in Mozambique and 12,000 in Malawi, reaching a cumulative total of around 94,000 live barns planted in both countries since 2014. From seedling to live barn, collaboration with our suppliers, farmers, and field technicians is fundamental to ensuring high rates of tree survival and growth.



Enhancing natural capital through reforestation and afforestation

As part of our efforts to halt deforestation and enhance natural habitats, we aim to restore hundreds of hectares of forest by 2025.

We require that our suppliers and farmers be self-sufficient in supplying wood for curing and construction. By 2025, we aim for them to grow more trees than they cut. We will also work with them on forest restoration, biodiversity, and natural habitats, prioritizing ecologically valuable and sensitive land such as key biodiversity areas.

Tree growing requires careful management and is limited to marginal lands where the carbon stock and existing biodiversity assets, including soil, can be enhanced. Since 2019, we have restored 165 hectares of forest to compensate for the unsustainable sourcing of firewood used for curing tobacco leaf. Additionally, aligned with the criteria of our forest positive program in our tobacco leaf supply chain we reported 190 hectares of additional forest established since 2019. In our forest positive methodology, we account for contributions only if two criteria are fulfilled by the market that declares additional forest hectares:

1. Zero gross deforestation conditions achieved and maintained
2. Zero net deforestation conditions achieved at end state (closing of the year), and additional forest hectarage considered only after compensation for eventual deforestation risk

Our MVR external auditor must validate the assumptions behind compensation activities submitted by our suppliers before PMI can consider the figures in its forest positive accounting.

Protecting forests in our paper and pulp-based materials supply chain

Assessing deforestation risks in our paper and pulp-based materials supply chain

For our paper and pulp-based products, we designed a risk assessment in 2021 that embeds the criteria of the [National Risk Assessment](#) (NRA) of the Forest Stewardship Council (FSC). We selected 17 criteria relevant to our paper and pulp-based supply chain and applied them to the list of countries from which we source. This allowed us to identify the following origin countries as at high risk of failing to meet our zero gross deforestation target: Argentina, Bosnia and Herzegovina, Brazil, Indonesia, Russia, Serbia, and Thailand. We plan to establish an assurance system covering all the countries that are part of our paper and pulp supply chain and will place particular focus on the high-risk origins (where we will deploy on-the-ground audits, as needed).

We intend to leverage satellite monitoring moving forward, replicating the operating model in place in our tobacco supply chain, to analyze deforestation risk in the areas where our paper and pulp-based product suppliers operate. Working with an external party to implement our zero-deforestation assurance framework, we will leverage tools such as a complementary risk assessment based on forestry news feeds.

Operationalizing our Zero Deforestation Manifesto

In our paper and pulp-based materials supply chain, we concentrated our efforts in 2021 on communicating our updated Zero Deforestation Manifesto to the suppliers of direct materials used in our products and device packaging. We engaged intensively with them, providing detailed implementation guidelines and hosting workshops and one-to-one training.

By year-end, these suppliers had all committed to help achieve our 2025 and 2030 targets and agreed to undergo a compliance assessment in 2022. We will replicate these efforts among our suppliers of secondary paper and pulp-based products in 2022; these include, for instance, suppliers of shipping cases, marketing materials, and bundle closing and inserts.

Managing water responsibly

From tobacco cultivation to manufacturing, our products require water. Our agricultural supply chain accounts for around half of our water footprint. The second-largest share of our water use (around 40 percent) derives from other sectors of our supply chain—in particular, the processes by which the filters, paper, and packaging materials we source are manufactured. Our direct operations are not particularly water-intensive, representing around 5 percent of our water footprint, with fresh water used for manufacturing, sanitation, and other processes.

Water is a renewable yet finite resource shared by all. We can help combat water scarcity and advance global health and food security by responsibly managing our impacts on water, especially in water-stressed regions.

Water stewardship in our tobacco supply chain

The quantity, quality, and timing of water availability all impact the growth of tobacco plants. For about 60 percent of the farmland in our supply chain, the growing season is synced to the rain season, enabling crops to be rain-fed during the open field stage. Where we use irrigation, we are mindful of the risk of baseline water stress when conducting local risk assessments. Overall, irrigation accounts for around half the water used to grow the tobacco we source, with an average of 339 cubic meters used for irrigation per ton of tobacco produced in 2021.

Since we started measuring it in 2018, the total water requirement related to our purchased tobacco volume has gradually decreased in absolute terms; however, our supply chain is subject to off-trend years. We experienced such a year in 2021, when the effects of climate change-driven events caused our water consumption to increase. The leading cause of unforeseen water use is seasonal variability, where temperature and air moisture conditions vary outside temporal series standard values, causing soil water stress conditions that can be mitigated by increasing irrigation volumes. We expect irrigation needs to increase in terms of intensity (i.e., water required per ton of tobacco produced) as we are recording a continuous increase in risk factors linked to seasonal variability in the tobacco-growing areas where we operate.

Assessing water risks

Evaluating and understanding water risk across our tobacco supply chain is critical to making informed decisions and effectively managing water resources.

We conduct a global water risk assessment annually in our tobacco supply chain using the World Resources Institute's Aqueduct risk-mapping tool. The tool analyzes physical water risks in all the tobacco-growing areas from which we source and forecasts patterns regarding the watershed scale that is likely to emerge in coming years.

Risks such as floods, upstream land use, and baseline water stress influence water availability for agriculture and community use and can also impact our tobacco farmers. Therefore, our global assessments take into account a wider hydrologic region than that devoted to tobacco cultivation.

Impact of climate change on water

Climate change is expected to affect rainfall patterns worldwide, placing pressure on water supplies and potentially restricting water availability for agriculture and certain industry sectors. Given the global reach of PMI's value chain, climate change-driven water scarcity could present a substantive threat to our business objectives in the mid to long term. Consequently, properly managing lands and water resources is a priority for PMI as we seek to increase the resilience of our production systems and minimize operational risks. We conduct a global water risk assessment annually in tobacco-growing regions to identify potential hotspots for physical water risks that require adaptation measures. In the past two years, we strengthened our water stewardship strategy, developing guidance for applying a landscape approach to water optimization projects, protecting natural resources and recharge areas, and improving the efficiency of irrigation systems to integrate better farm water management.

In 2021, we improved our methodology to assess water risks, taking into account the size of each tobacco-growing area, instead of single geographic locations. Accordingly, our 2021 assessment revealed that most tobacco-growing areas (79 percent) showed a “medium to high,” “high,” or “extremely high” level of physical risk (including 32 percent identified as “high” or “extremely high”). This assessment accounts for overall watershed risk, including but not limited to drought, upstream land use, and baseline water stress.

To complement our global exercise, we routinely conduct local water assessments, which leverage primary data sources and interviews with stakeholders to gauge both external and internal water risk on the ground. The external criteria assessment looks at the drivers of risk at the watershed level that are affecting all stakeholders, while the internal criteria focus on tobacco farming, forecasting risk sensitivity for farmers in our supply chain. Since 2018, we have completed 31 local water risk assessments (representing approximately two-thirds of our total tobacco-growing areas), and we aim to cover all tobacco-growing areas by the end of 2025. In 2021, we conducted on-the-ground water risk assessments in Argentina, Brazil, the Philippines, and Turkey. These assessments helped identify the shared water challenges that are a necessary starting point for properly designed risk mitigation initiatives. A frequent challenge recorded in our 2021 local risk assessments is competing demands for limited water supplies. For instance, in the Fırat-Dicle Basin in Turkey, we see competition for water resources between agriculture and manufacturing industries. Other challenges identified include the awareness of farmers of water-related issues in the Alto Iguaçu watershed in Brazil and groundwater decline leading to dry wells in the Bicol River Basin in the Philippines.

In 2022, we will further assess challenges at the watershed level, involving community stakeholders as warranted to mitigate risks.

31

local water risk assessments completed in our tobacco supply chain since 2018

Optimizing water

As defined by the Alliance for Water Stewardship, a shared water challenge is a water-related issue, concern, or threat shared by the site and one or more stakeholders within the catchment(s). Drawing on our experience and the findings of our risk assessments, we aim to go beyond water management toward water stewardship to tackle shared watershed challenges, leveraging a science-based approach to improve water conditions for beneficiaries across each watershed.

We have set a target of optimizing at least 10 million cubic meters of water (cumulative since 2019) in our tobacco-growing areas by 2030 through dedicated projects that address shared water challenges in the watersheds where we operate. To achieve this goal, we plan to generate volumetric water benefits through farm- and landscape-level interventions, leveraging our on-the-ground presence in collaboration with our suppliers and local stakeholders.

In 2021, we partnered with the experts of Bluerisk and Valuing Impact to apply the World Resource Institute's [volumetric water benefit accounting \(VWBA\) methodology](#) to our tobacco supply chain. This allowed us to better understand the potential impacts of water retention interventions, whether positive (e.g., carbon sequestration due to increased soil organic matter) or negative (e.g., increased water withdrawals due to more efficient irrigation systems that may trigger increased evapotranspiration).

The projects we undertake range from nature-based solutions to irrigation efficiencies and rainwater collection. For example, in 2021, we modified our farmer footprint in Turkey by supporting farmers in switching their previous crops to tobacco, which requires substantially less irrigation water. This change has helped address competing demand for limited water supplies in the water stressed Aegean Region, reducing by more than 300,000 cubic meters the amount of water withdrawn from the local watershed. The results of this project have contributed to our 2030 volumetric water optimization target.

We also trialed irrigation optimization sensors in Italy, leveraging drip irrigation, liquid fertilizers, and the deployment of a decision support system that uses digital technology to ensure the most efficient crop input amounts (of both water and fertilizers). Our goal is to optimize the ratio between crop input and productivity to minimize the use of resources, including water, while maximizing crop yield.

Meanwhile in Brazil, many of our farmers have water springs on or near their farms. To maintain water quality and prevent contamination and runoff, we supported them in protecting water points by installing fencing to keep away cattle and prevent contamination. Overall, since 2019, we have already optimized 437,915 cubic meters of water across our tobacco supply chain. When designing projects, we seek to take a holistic approach that aims to both protect natural capital and generate water benefits for local watersheds. Nature-based solutions are proven to bring significantly greater benefits than projects focused solely on reducing water consumption at the farm level.

Water quality

When misused, crop protection agents (CPAs) and fertilizers can pollute the local environment. While CPAs protect crops and fertilizers improve crop yield, these chemicals can infiltrate groundwater or run off into surface watercourses, impacting aquifers and aquatic ecosystems.

We maintain a global integrated pest management program to reduce the unnecessary use of pesticides, promote less hazardous alternatives, and manage both appropriately (read more here). Further, to minimize their negative impact, we promote more efficient ways to apply fertilizers, such as through drip irrigation systems that distribute them in smaller quantities and directly to the plants' root systems. The interventions of field technicians—who help educate farmers—are key to improving pesticide and fertilizer management.

Water stewardship in our operations

We have a long-standing approach to driving water stewardship in our direct operations, including our manufacturing sites.

Assessing water risks

We conduct periodic risk assessments, mapping our factories, offices, and warehouses against the World Resources Institute's Aqueduct Water Risk Atlas to identify those sites subject to physical water risks.

The assessment accounts for:

- A criticality evaluation, based on indicators and thresholds that define the criteria for a site to be considered critical for PMI's business continuity.
- Water risk scores, based on the results of the WRI Aqueduct Water Risk Atlas. The relevant water risk indicators for PMI were identified according to the type of facility (e.g., factory, warehouse, or office).

Following our 2020 assessment results, we kept our focus in 2021 on four factories: three sites in Europe shown to have high criticality and to face risk of drought or water stress and one site in Asia at risk of riverine flooding.

Accelerating water-efficiency efforts

Manufacturing cigarettes and consumables for our smoke-free products accounts for around 5 percent of our total water footprint and amounted to around 3.12 million cubic meters in 2021 (2020: 3.38 million cubic meters).

The production of smoke-free consumables initially was five times more water-intensive than the manufacturing of combusted cigarettes. While the public health benefits of smoke-free products justify the trade-off of increased water intensity, we are accelerating our efforts to mitigate the increased water demand in the manufacturing process through enhanced efficiency. In 2021, we reduced water intensity by 44 percent versus 2018, achieving a ratio of 2.6 cubic meters per million cigarettes equivalent, down from 4.7 in 2018.

We continuously work to improve our processes, invest in novel technologies, and raise awareness among our employees. Our Drive 4 Zero program plays a crucial role in improving performance. In 2021, we were able to reduce total water consumption across our manufacturing sites by 8.5 percent despite the continued and significant increase in the production volume of heated tobacco units.

Our efforts are bearing fruit: Between 2018 and 2021, we reduced water consumption at our manufacturing sites by 28.6 percent in absolute terms.



Water and wastewater quality

Water quality plays a vital role in our operations. At our factories, high-quality fresh water is used in manufacturing processes—including the preparation of flavors and liquid products and the production of smoke-free consumables—for sanitation and hygiene, and for landscape watering. To reduce water dependency in the long term, we are implementing technologies and efficiency initiatives to recycle and reuse water at our manufacturing facilities. These technologies include, for instance, reverse osmosis and electrode ionization.

Monitoring wastewater quality is standard procedure at our manufacturing sites. We conduct sampling following recognized protocols to measure standard effluent parameters. Although we conduct some laboratory analysis internally, most is handled externally by accredited labs. Our certified environmental management systems help our sites remain in compliance with current and future statutory and regulatory requirements associated with water discharge.

Fostering best practices in water management

Certifying our manufacturing sites to the Alliance for Water Stewardship (AWS) standard is a critical component of our approach to water management. The AWS standard is a globally applicable framework that enables organizations to understand their water use and impacts and work collaboratively and transparently with others to achieve sustainable water management within the wider water catchment context. It goes beyond manufacturing to help companies engage with the communities in which they operate.



CASE STUDY

Water stewardship in the Philippines

In 2021, our manufacturing site in Batangas set out to become the first factory certified by the Alliance for Water Stewardship (AWS) in the Philippines. The certification was undertaken with the goal to promote sustainable water stewardship practices in collaboration with local stakeholders.

→ [Read more in our case study here.](#)

Our goal is to certify all our factories to the AWS standard by 2025, and we are making good progress. In 2021, our sites in Brazil, the Czech Republic, Greece, Indonesia, Italy, Mexico, the Philippines, Poland, Portugal, Romania, Russia, South Korea, Switzerland, Turkey, and Ukraine completed the certification process (or, for those sites that previously had been certified, underwent the annual surveillance audit), bringing the total number of our factories certified since 2018 to 16.

Our water risk assessments guide our certification timelines and levels of ambition. For instance, we achieved Platinum AWS certification for our factory in Brazil, which is located in the same catchment area as our smallholder tobacco farmers in Rio Pardo and Taquari-Antas. During 2021, we launched a new project to analyze groundwater quality because it was found to have a naturally high concentration of fluoride, affecting drinking water. To reduce the fluoride concentration, we collaborated with the local university to develop a green filter based on World Health Organization literature and test it at farmers' homes. The project, which is still ongoing, has more than six months of proven efficacy and was presented at the annual conference of the Brazilian Chemical Society.

Between 2019 and 2021, we also invested in developing our internal capabilities to accelerate the rollout of the AWS program across our factories, accrediting close to 50 employees as internal AWS auditors through the AWS specialist training from the SGS Academy.

Reducing waste

Adequate waste management creates efficiencies and allows for better use of finite resources. We follow the waste hierarchy, whereby we aim first to reduce the waste we generate, promote its reuse and recycling whenever possible, incinerate it when this is the best option available, and, to the extent possible, avoid adding to landfill.

Managing the waste generated in our operations

We are committed to reducing the waste generated by our operations and to identifying and applying the most sustainable waste treatment options available. We manage all waste from our production sites, including waste from catering, rest areas, laboratories, and healthcare facilities. We pay special attention to our most valuable waste streams, such as tobacco, paper, card, and cellulose acetate tow, and to hazardous waste, such as oils, lubricants, flavor residues, paints, solvents, chemicals such as nicotine from laboratories, and activated carbon filters.

We apply a comprehensive approach to waste management:

Avoid and reduce: A core focus of our strategy is to reduce the amount of waste generated by converting raw materials into products as efficiently as possible. In 2021, we generated a total of 114,043 tons of waste, of which 1 percent was hazardous. This is 17 percent less waste generated than in 2020 and 29 percent less than in 2019. We also strive to eliminate or reduce waste at the source; for instance, by requiring suppliers to use returnable pallets and containers when delivering materials to our sites. With improvements to our lean manufacturing processes and our continuous focus on loss elimination, we have been able to reduce the waste generated in production consistently.

Reuse and recycle: In parallel to optimizing our processes to cut waste, we strive to responsibly manage the waste we do generate. We first seek to reuse materials ourselves or make them available to others, extending their lifetimes within the circular economy. For instance, we use organic waste generated by our factory in Italy (e.g., food waste from the canteen) to produce compost, which we then apply as fertilizer to the green areas surrounding the site.

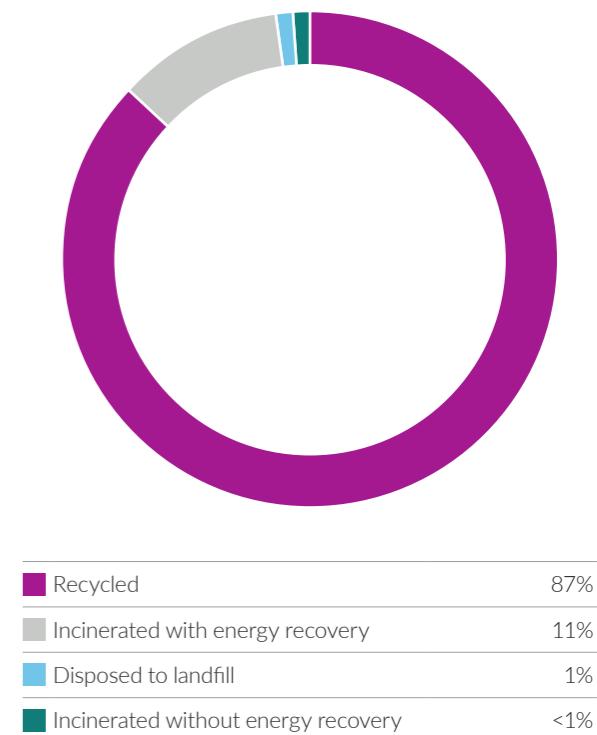
We do not count the materials reused by others as waste because this reuse helps reduce the consumption of natural resources in other industries.

Another path is recycling, which currently represents most of our waste disposal (87 percent in 2021). This includes segregating waste into paper, plastics, metals, and glass and often selling these materials to recycling companies so they can be turned into new products.

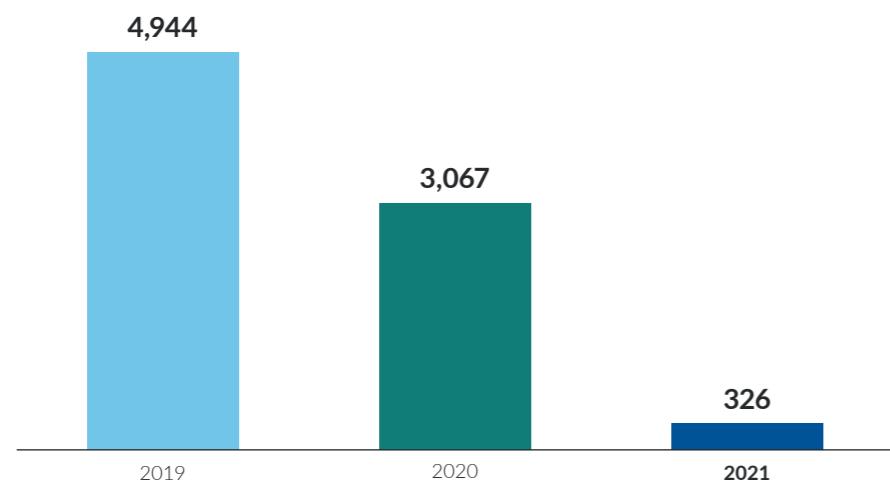
Recover: When recycling is not possible, we seek to recover waste materials and use them to generate energy. In 2021, 11 percent of the waste generated was incinerated with energy recovery, while only 1.4 percent was incinerated without energy recovery or disposed in a landfill.

Employee engagement is a critical driver in helping us to use less and reuse and recycle materials wherever we can. Our Drive 4 Zero program empowers employees to identify and implement improvement opportunities for waste reduction.

Disposal of waste generated in 2021



Total landfilled waste (tons)



Aiming for zero waste to landfill in our factories

We apply a “zero waste” philosophy, but we acknowledge that even the most efficient systems inevitably involve a small amount of landfill; for instance, waste-to-energy ash residue, waste legally mandated for landfill, and greywater sludge. Therefore, our ambition is for our sites to achieve a landfill diversion rate of 99 percent or greater.¹

In 2021, we achieved virtually zero production waste to landfill globally, with a total of 1,232 tons of production waste disposed to landfill (representing a reduction of 77 percent compared with the close to 5,375 tons in 2019).

We aim to achieve virtually zero waste to landfill across each PMI manufacturing site by year-end 2022 while complying with all relevant waste regulations and standards. By the end of 2021, 83 percent of our factories had achieved virtually zero waste to landfill. We now are focused on the remaining sites to achieve our 2022 ambition.

All our manufacturing sites have annual waste targets supported by specific projects to ensure their delivery.

¹ Our calculation of zero waste to landfill does not include canteen and sanitary waste, which do not relate to our production processes. It also excludes the mandated waste, generally tobacco, that we are obliged to landfill to respect local regulations.

Fostering responsible waste practices in our supply chain

Beyond our operations, we seek to foster a positive impact on waste practices in our supply chain, particularly in our tobacco supply chain. Our [Good Agricultural Practices](#) require that suppliers have waste management plans in place. In addition to being compliant with relevant laws and regulations, these plans should incorporate identification of waste sources, improvement measures, recycling programs, risk mitigation, and communication with farmers regarding waste classification, storage, recycling, and disposal.

Further, we expect our tobacco suppliers to dispose of empty agrochemical containers safely and appropriately. In some countries, we provide additional support to ensure the collection and proper disposal of containers that held pesticides or crop protection agents. In Indonesia, for instance, we partnered with local stakeholders and [Plastic Collective](#) in 2021 to support the setup of a recycling center for other types of plastic waste in rural communities. The project relies on a recycling hub with 20 collection centers to provide a model for local community plastics recycling. The aim is to recycle over 80 percent of single-use plastics in the communities where the project is implemented, and to reduce environmental pollution by supporting these farming communities with education and economic incentives to participate. The initiative was launched in early November; in its first 30 days of collection, around 3.7 tons of single-use waste plastic was collected by community members.

Preserving natural ecosystems

We strive to reduce the negative impacts of our operations and sourcing activities on habitats and ecosystems while looking for ways to contribute to the diversity of plant and animal life.

Joining forces to protect biodiversity

We believe companies have a critical role to play in tackling biodiversity loss by promoting conservation in partnership with both international organizations driving for global ambitions and local stakeholders who understand their surroundings and experience effects on the ground.

We participate in international forums such as CSR Europe’s Biodiversity & Industry Platform, WBCSD’s working groups on nature and forests, and Business for Nature, and we leverage the work of the Science Based Targets Network (SBTN). As of 2021, we also participate in the member forum of the TNFD, providing support and contributing to collective action.

We call on governments to adopt a common and ambitious framework during the 15th meeting of the Conference of the Parties (COP15) to the Convention on Biological Diversity (CBD) to set the stage for worldwide action on biodiversity.

Designing a holistic biodiversity strategy

We understand that building a meaningful global approach to biodiversity requires the conscious cross-pollination of various strategies and interventions. The combined effects of nature degradation, climate change, water scarcity, and forest loss—among other factors—are creating a biodiversity crisis. To respond appropriately to this crisis, we must account for the synergies and interdependencies of environmental impacts along our value chain and put biodiversity protection at the nexus of our climate, forest, and water strategies.

Over the past couple of years, we have focused on gaining visibility into and an understanding of our impacts on biodiversity. Leveraging the application of the Mean Species Abundance (MSA) metric in our 2019 assessment, CSR Europe’s 2020 evaluation on the maturity of biodiversity practices, and our own datasets and expertise, we identified the following priority areas along our value chain:

- In our tobacco supply chain, our focus should be on the tobacco cultivation process, which carries risks related to degradation of the natural environment linked to loss of ecosystem area, chemical pollution, and invasive species.
- In our non-tobacco supply chain, emphasis needs to be put on the deforestation risks linked to the sourcing of paper and pulp-based materials.
- In our direct operations, attention should be paid to the proximity of our sites to protected and key biodiversity areas and the implementation of good environmental practices at manufacturing sites.
- Downstream in our value chain, we should concentrate on preventing the littering of our product consumables.

Biodiversity stewardship in our tobacco supply chain

In 2021, we partnered with the [Biodiversity Consultancy](#) to identify the main dependencies and impacts related to our tobacco leaf supply chain. Our aim was to align strategy development with the SBTN approach to set interim targets that have measurable, actionable, time-bound objectives that will be revised once the global goals for nature have been formally set by the Convention on Biological Diversity COP.

As a first step, we assessed the programs currently in place to deliver on biodiversity. These include our Good Agricultural Practices program, integrated pest management program, Zero Deforestation Manifesto, renewable curing fuels program, and water stewardship efforts in addition to locally run biodiversity projects such as our diagnostic tool for environmental protection at farm level in Brazil.

We then focused on deepening our understanding of our tobacco supply chain from a biodiversity standpoint, evaluating its extent and the types of ecosystem it involves.

This work also included a mapping of key dependencies and potential impacts across land use, agricultural practices, water consumption, and forest protection. This allowed us to scope the areas of application of our strategy, which we expect to cover land occupancy, ecosystem conversion, water stewardship, climate change, chemical pressure, and invasive species.

Toward the end of the year, we also started piloting various measurement instruments. In particular, we applied the Integrated Biodiversity Assessment Tool (IBAT)—including the Species Threat Abatement and Recovery (STAR) metric—and combined it with our spatial footprinting to draw preliminary insights to guide us in our selection of meaningful indicators and targets moving forward.

Integrated pest management program

Our Good Agricultural Practices and integrated pest management (IPM) program aim to protect both the environment and farmers' health and safety. Improving crop productivity creates value for farmers and for PMI. Using less surface area to grow the same amount of tobacco can free up land for food crops, other income-generating activities, and, potentially, biodiversity conservation habitats.

Under our IPM, pests and diseases are controlled by a set of cultivation practices that include, as a last resort, the correct and safe application of crop protection agents. These practices promote healthy crops and safeguard biodiversity on farms and in surrounding areas. We have implemented IPM plans in our main tobacco-sourcing areas and provide toolkits that help farming communities identify and implement appropriate protection practices. In certain areas, we have developed models that can predict outbreaks of particular pests and diseases, helping farmers to understand when the use of CPAs is strictly necessary. As an example, a decision support system was made available to tobacco farmers and field technicians in Italy to help prevent and manage pest and disease outbreaks. The system helps the decision process by integrating data from forecast models, crop scouting, and remote sensing (satellite images). It is currently used by more than 100 farmers covering a surface of 3,000 hectares, all mapped and digitalized.

It leverages a network of 17 weather stations located in the tobacco-growing areas to maximize the precision and reliability of pest forecasting models. The tool increased farmers' awareness of IPM and helped them optimize their use of agrochemicals.

Further, we have started to proactively promote the use of biological compounds instead of chemical CPAs and are exploring the use of beneficial insects as natural enemies. As an example, among the various IPM strategies adopted in our tobacco supply chain in Brazil, drones are used to release the insect Trichogramma pretiosum over tobacco fields. Trichogramma are a natural enemy of tobacco Lepidoptera pests. Over a billion of these insects were released in 2021, helping to keep crop-damaging pests under control.

Across our supply chain, PMI prohibits the use of CPAs classified by the World Health Organization as Toxicity class I and permits those in class II in well-justified cases only. We achieved our target of eliminating the purchase of tobacco that contains residues indicating the use of highly hazardous pesticides by crop year 2020 (on which we are reporting in this 2021 report).

Genetically modified tobacco

In line with our [GAP principles](#), genetically modified (GM) tobacco is not acceptable to PMI. We have solid programs in place to avoid the inadvertent introduction of GM tobacco into the products we commercialize.

Specifically, we require that each lot of tobacco seeds used to produce crops destined for PMI be systematically sampled and tested to ensure no GM tobacco is grown for our company. Specialized laboratories analyze the seeds sent by all our tobacco suppliers and provide the results directly to both PMI and the suppliers. Additionally, once the tobacco is grown and prior to purchase, we have each lot of tobacco tested—by the same specialized labs—to ensure it has not been genetically modified. If any GM tobacco is detected, the lot is rejected and does not enter PMI's supply chain.

Looking ahead



We are dedicated to setting very solid foundations for our biodiversity approach to be best positioned to drive progress in a complex area. We will further develop our biodiversity strategy, covering all relevant areas of the company and its integration within our climate, water, forest, and waste reduction efforts. Noting the relevance that biodiversity and water have in our overall climate strategy and aims to preserve nature, we look forward to introducing 2025 targets that reflect our level of ambition. We expect to have a full set of targets and actionable milestones by the end of 2022.

Massimo Andolina, Senior Vice President, Operations



We will continue delivering on our ambition to achieve a deforestation-free supply chain. In our tobacco supply chain, we plan to become forest positive, leveraging initiatives linked to nature-based solutions and providing multiple benefits to support ecosystem restoration and enhancement. In 2022, in accordance with our Zero Deforestation Manifesto commitments, we will expand the scope of our engagement with our paper and pulp-based materials suppliers, encompassing all secondary pulp-based product categories and suppliers.

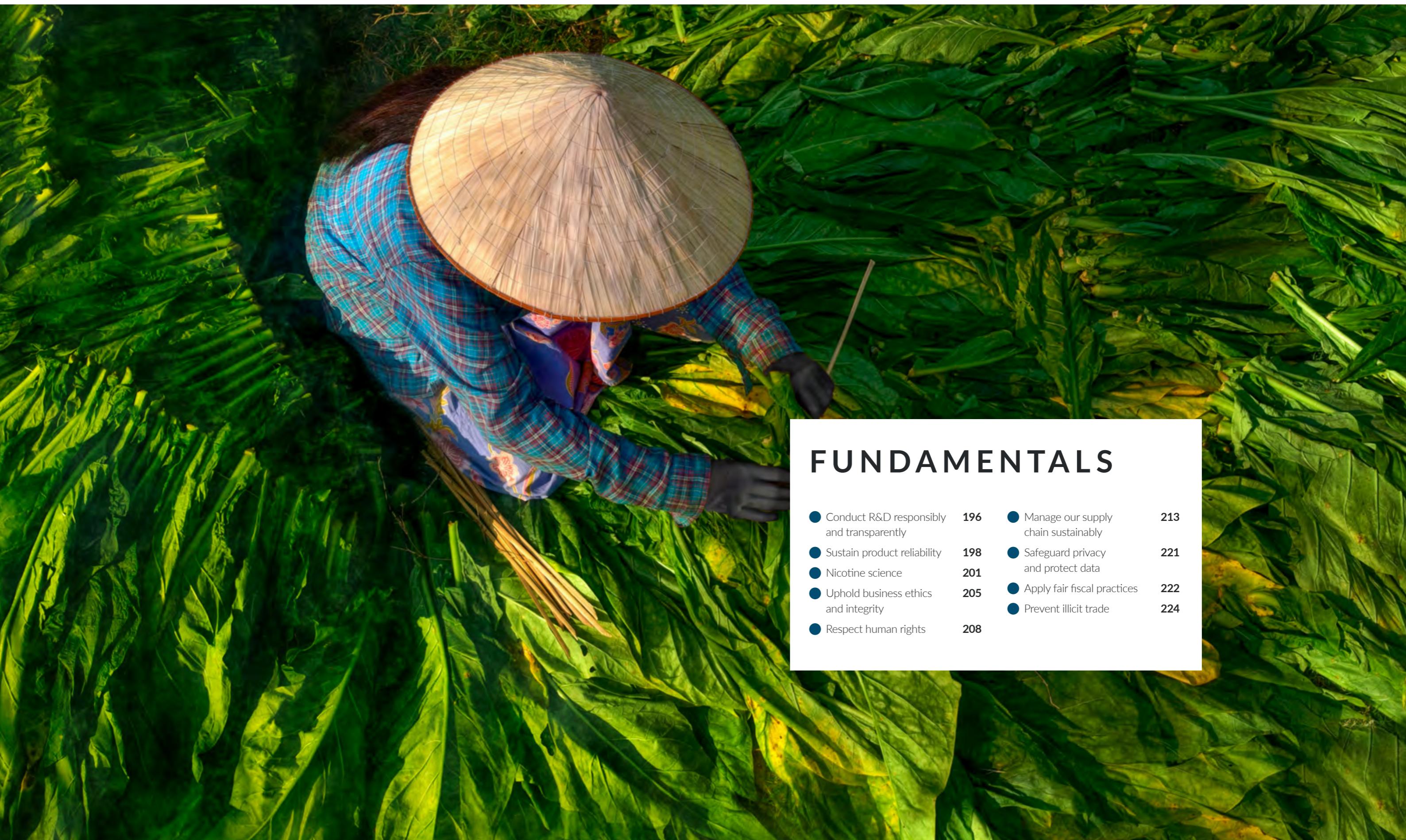
We plan to certify five additional factories to the AWS standard in 2022 and to continue enhancing water efficiency and preserving water quality in our manufacturing sites. In our tobacco supply chain, we will continue to deploy our new optimization strategy to identify the most meaningful interventions, guided by our science-based approach.

Our 10 million cubic meter target is a measure of progress that illustrates much more: strong stakeholder engagement at the watershed level and a deep understanding of, and commitment to, acting on shared water challenges with a forward-looking interpretation of water needs.

We are focused on achieving our goal of virtually zero waste to landfill in our manufacturing facilities by the end of 2022, having all our manufacturing sites below 1 percent of waste to landfill in their operations, and continuing to reduce our total waste generation.

Claudia Berardi, Director, Environmental Sustainability, PMI Operations





FUNDAMENTALS

- | | | | |
|---|------------|---------------------------------------|------------|
| ● Conduct R&D responsibly and transparently | 196 | ● Manage our supply chain sustainably | 213 |
| ● Sustain product reliability | 198 | ● Safeguard privacy and protect data | 221 |
| ● Nicotine science | 201 | ● Apply fair fiscal practices | 222 |
| ● Uphold business ethics and integrity | 205 | ● Prevent illicit trade | 224 |
| ● Respect human rights | 208 | | |

Conduct R&D responsibly and transparently

World-class research and development is powering PMI's delivery of a smoke-free future.

Conducting our research and development (R&D) openly and transparently is of utmost importance. When coupled with scientific integrity and rigor, transparency helps address skepticism and mistrust and fosters the sort of collaboration and cooperation needed to drive positive societal change. Evidence resulting from robust scientific assessments advances the debate on public health and tobacco harm reduction, to the benefit of adult smokers.

At PMI, R&D is the catalyst for our business transformation. The rigor with which we conduct our R&D—and the openness with which we share our methodologies and findings—builds confidence in our science among the scientific community, regulators, and our consumers, protects our company from reputational risk, and, most importantly, allows us to commercialize our smoke-free products around the world.

Our approach

Our R&D work is focused on developing and scientifically substantiating smoke-free alternatives to cigarettes for adults who would otherwise continue to smoke. Eliminating combustion reduces users' levels of exposure to harmful and potentially harmful chemicals compared to smoking. In conducting R&D, we strive for excellence in line with international standards—with zero tolerance for compromise in either our scientific methods or their execution.

Decision-making on R&D strategy and direction is handled by specific committees at the product assessment, project design, and Board levels. Among other responsibilities, the Board's Product Innovation and Regulatory Affairs Committee monitors the company's internal scientific research, including efforts to substantiate the risk-reduction potential of our smoke-free products. Our President, Vectura Fertin Pharma and Chief Life Sciences Officer holds overall responsibility for our R&D strategy and plans, while accountability for scientific excellence and transparency rests with our Chief Scientific Officer.

We regularly interact with an extensive network of stakeholders, including long-term study partners, research partners, production site personnel, universities, suppliers, consumers, and regulators.

We adhere to high scientific standards, and our research is aligned with the U.S. Food and Drug Administration's draft guidance on modified risk tobacco products (2012).

In conducting our studies, we aim to align with available international standards, such as applicable ISO standards, OECD's Principles of Good Laboratory Practice, and Good Epidemiological Practices. Importantly, all our clinical studies are conducted in accordance with the Declaration of Helsinki and the principles of Good Clinical Practice. These standards aim to ensure the quality and integrity of nonclinical and clinical studies.

Sharing our methods and findings

We recognize that scientific research from tobacco companies may be met with skepticism. Sharing our science and listening to feedback are critical to encouraging debate with experts and the broader public. We produce a regular briefing through our Scientific Update publication, which complements what we share throughout the year via articles in peer-reviewed journals, presentations at conferences, and our [PMIScience website](#). Since 2008, we have published more than 452 papers on smoke-free products in peer-reviewed publications. In 2021, we continued our Open Science conference series, hosting webinars and making the recordings available on [PMIscience.com](#). In addition, our scientists continued to present their findings at conferences and virtual events throughout the year in the fields of toxicology, aerosol engineering, and respiratory drug delivery.

By sharing our scientific data and papers, we allow the research community and broader public to gain an in-depth perspective into how PMI conducts R&D and our research findings. We welcome objective studies by external stakeholders that seek to contribute to a science-based debate on the important societal question of tobacco harm reduction.

INTERVALS

To address concerns over the reproducibility of research results, we created a platform called [INTERVALS](#) specifically for tobacco harm reduction science. INTERVALS is meant to be a comprehensive reduced-risk product research repository with data from a variety of third-party sources, in addition to PMI's research data.

By promoting the sharing of protocols, tools, and data, this platform enables independent data reanalysis and collaboration. It was designed to allow all relevant stakeholders to share and explore toxicity assessment data produced in relation to product alternatives to cigarettes. As of the end of 2021, a total of 87 studies, 132 protocols, and 676 data sets had been published on INTERVALS since 2018.

PMI's Postdoctoral Fellowship Program

Thirteen candidates have taken part in the two-year Postdoctoral Fellowship Program at PMI Science since its inception in 2017, covering topics ranging from genome engineering to human behavioral psychology. The program provides early-career scientists with a toehold in both academia and industry. Our R&D center in Switzerland—called the Cube—houses the fellows, who are provided with the tools, technical skills, and methodologies they need to reach their research potential. At the end of the two-year program in 2019 and 2021, both waves of talented scientists enrolled in the program had made significant contributions to PMI's scientific research and innovation.

Animal testing

Animal studies allow us to confirm in vivo what pharmacology and toxicology studies show in vitro. We use human-derived cells in vitro, but the animal studies in vivo allow us to assess scientifically the consistency of our findings.

Despite toxicology standards accepting the use of rodents, we are working to replace animal testing with non animal-based testing approaches to the extent possible. We apply the "3R" guidelines: replacement, reduction, and refinement (see our [Standards for Animal Testing](#)).

We hope that in time we will be able to replace much or all animal testing with alternative methods. Our animal welfare committee, composed of veterinary and scientific PMI professionals with ample experience in animal testing, is responsible for reviewing protocols and examining them for compliance with scientific and animal welfare criteria. Our in vivo facility is accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International, which sets the gold standard in animal welfare for the use of animals in scientific research.

Sustain product reliability

Our ambition to accelerate the end of cigarette smoking rests on rigorous scientific assessment, highly reliable products, and strict regulatory compliance.

Cigarette smoking causes serious health risks and disease and is addictive. We take our duty as a manufacturer seriously to ensure that—for adults who continue to smoke—any additives used (e.g., flavorings) do not increase the health risks inherent to cigarette use.

For adult smokers who switch to products that do not combust tobacco, it is of paramount importance that these alternatives are scientifically substantiated to demonstrate that they present less risk to health than continued smoking, and also that they are developed, tested, and manufactured according to applicable regulations and standards to ensure consistent product integrity and quality.

Delivering a smoke-free future relies on the development and commercialization of products that meet both stringent scientific requirements and technical design criteria. Investments to maintain and continuously improve the reliability of our products enable us to protect our reputation and brand equity while complying with regulations.

Our approach

Our quality management system (QMS) covers all our products: smoke-free and combustible. Governance and accountability for consistent product integrity, quality, and reliability sits at the highest management level at PMI and is guided by our QMS, as well as internal and external standards. Our work on product integrity and reliability is mainly carried out by teams in our product development, procurement, manufacturing operations, and quality organization departments. Their collective efforts ensure we preserve quality, from raw material to the retail shelf.

Our approach to product reliability starts with our contracted farmers and suppliers. We work with them to secure high-quality raw materials and components, applying robust procurement processes, detailed auditing, and rigorous quality assurance procedures.

Our factories are designed to manufacture our products to the highest quality standards, following the ISO 9001 certification principles. This includes, for example, the careful selection of materials that come in contact with semifinished and finished products during manufacturing and the appropriate training of operators.

Our manufacturing quality management systems are subject to inspection by authorities and certified bodies. Globally, a team of around 1,800 product quality associates ensures that quality assurance, control, and improvement covers incoming materials, semifinished components, and finished products across our global footprint. Additionally, we have more than 102 corporate quality professionals who establish and embed standards throughout our QMS processes. We supplement these measures with dedicated third-party quality management programs and by placing a PMI quality assurance colleague on-site at each key electronic manufacturing supplier of our smoke-free devices.

Product reliability also extends to the packaging, storage, and transport of finished goods to ensure they reach the consumer in proper condition. Packaging has a crucial role to play in this regard and also helps ensure the traceability and identification of our products so we can act promptly should issues arise. Each packaging unit has a unique serial number that allows us to trace the entire supply chain journey, from factory to market, enabling backward traceability in the case of product quality issues. Additionally, each device and consumables pack has a unique serial number. In the event of a product recall (of which there were none in 2021) or an identified quality incident, we can leverage this traceability to investigate the problem and undertake any necessary containment actions in an efficient and targeted manner.

Moreover, we focus on the sustainability and longevity of our products by embedding eco-design principles and post-use collection schemes. Learn more [here](#).

Smoke-free products

Smoke-free products include heated tobacco and e-vapor products, which comprise consumables and electronic devices subject to strict design controls. The process ensures that the product is developed according to predefined and controlled criteria and demonstrates reduced toxicity compared with cigarette smoking. Any alterations to the product are made under a strict change management process that assesses the impact of the change on the product's quality, safety, performance, and regulatory compliance. In addition, as part of product development, we apply use-hazard analysis. We assess the risks related to the intended use and foreseeable misuse of the product, and we implement appropriate mitigation measures.

Heat-not-burn devices

The electronic devices for our heat-not-burn product are manufactured according to internal standards and ISO 9001 principles and certified according to applicable regulations and standards. The suppliers of the devices' electronic parts and components, including batteries, must also operate under these quality standards. Each finished device is subject to rigorous controls before shipment.

In case of consumer complaints regarding the devices, PMI has established a thorough monitoring process enabling early detection of consumer pain points; these insights are then used to improve our products and components.

Since the reliability and durability of devices contribute to sustainability outcomes, we strive to strike the right balance between extending a product's lifetime in use (thus lowering demand on natural resources) and updating and improving the product's effectiveness and competitiveness in the market.

Heated tobacco units

IQOS heated tobacco units (HTUs) are inserted into the device holder by the consumer. Each unit is composed of a tobacco plug (also containing a metal susceptor in the case of TERE A consumables), hollow acetate tube, polymer-film filter, cellulose acetate mouthpiece filter, and filter papers. The uniquely processed tobacco plug is made from a reconstituted blend of high-quality tobacco leaves. We disclose the ingredients of our heated tobacco units on our [website](#).

The manufacturing of heated tobacco units demands high levels of precision and consistency. For instance, the diameter of the unit, as well as the properties of the cast leaf, are crucial to product performance. Heated tobacco units are also tested for stability, using standard protocols covering different temperature and humidity ranges. The design and packaging aim to preserve product quality and safety in the various conditions to which it may be subjected (read more on [PMIScience](#)).

E-vapor products

Our e-vapor devices use a cartridge containing an e-liquid. The product's reliability depends on the integrity of the tank; if the tank is tampered with, the product could fail. We recognize a trade-off between product reliability and recyclability, but prioritize safety: We use closed tank systems in the development and commercialization of e-vapor products. We also test our packaging to ensure compliance with local regulations, including the EU Tobacco Products Directive, and we engage external agencies that test the integrity and safety of our e-liquid packaging.

Combustible products

Our combustible products are also subject to stringent product development controls. We strictly adhere to product specifications and regulations for cigarettes and apply further internal requirements to ensure the highest quality products. We disclose the ingredients used in our conventional products on our [website](#). These ingredients undergo toxicological assessment to ensure their use does not increase the inherent toxicity of cigarette smoke. We keep abreast of strengthening or pending regulation, and a further regulatory compliance assessment is performed to ensure compliance with applicable regulations.

Besides tobacco ingredients, we use nontobacco materials such as cigarette paper, filters, and packaging materials in our products. These materials also undergo toxicological assessment, and we assess packaging materials following the main requirements for food contact materials.

We warn consumers about the health effects of our products. All advertising and consumer packaging for these products must contain clear and visible health warnings (read more about our marketing and sales practices [here](#)).

Ingredients in our heated tobacco units and e-liquids

Heated tobacco units and e-liquids are manufactured using ingredients compliant with all applicable regulatory requirements and with industry and PMI standards. The tobacco used in our heated tobacco products is tested for the presence of crop protection agent residues to ensure it does not exceed permissible levels per industry guidelines. Nicotine and nicotine salts used in e-liquids must satisfy U.S. or European pharmacopoeia specifications. All other ingredients (with the exception of flavoring extracts from tobacco) are either food grade or satisfy U.S. or European pharmacopoeia specifications. We do not use any ingredients classified as carcinogens, mutagens, or reproductive toxicants. All consumable ingredients—and also non-substrate material, such as the plastic and other components of cartridges that house the e-liquid and the paper and other components that house the tobacco mixture—are subject to rigorous toxicological risk assessment.

Nicotine science

Tobacco naturally contains nicotine. Therefore, so do combustible tobacco products such as cigarettes and cigars, as well as smoke-free products such as oral and heated tobacco. While e-cigarettes do not contain tobacco, most do contain nicotine, which typically is extracted from tobacco.

Nicotine is the best-known molecule in tobacco. Because it is so well known and because smoking is the most common source of nicotine uptake, people tend wrongly to attribute all the dangers of smoking to nicotine. While nicotine is addictive and not risk-free, it is not the primary cause of smoking-related diseases. These diseases primarily are associated with chronic exposure to the high level of toxic substances emitted in the smoke when tobacco is burned. In fact, nicotine is a key ingredient in nicotine replacement therapies designed to help smokers quit smoking.

That said, nicotine is addictive, and it can be difficult to quit tobacco- and nicotine-containing products. It can also cause an increase in a person's heart rate and blood pressure. Minors, pregnant women, nursing mothers, and people with existing conditions such as heart disease, high blood pressure, diabetes, or epilepsy should not use nicotine-containing products.

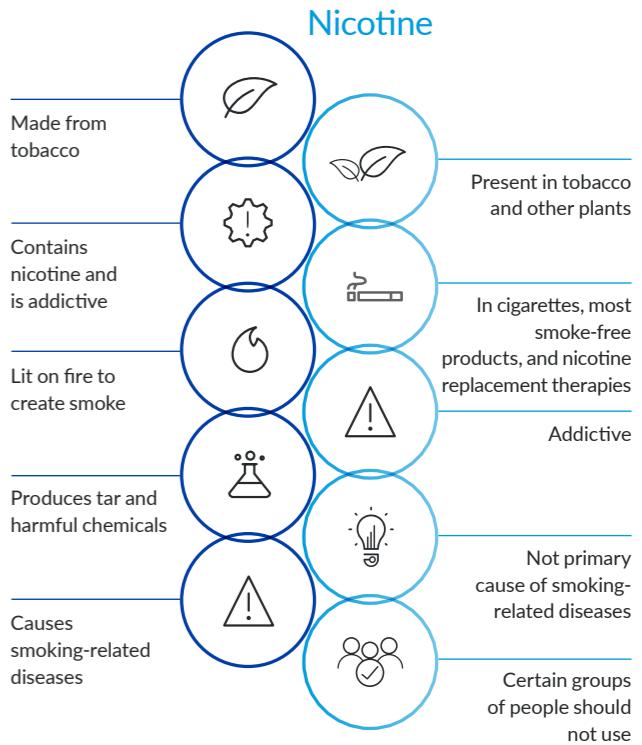
Independent studies have shown the harm reduction potential of making better alternatives to cigarettes available to those adult smokers who would otherwise continue to smoke (read more [here](#)). If nicotine could be provided in an amount, and with rate of delivery, acceptable to adult smokers, it could be effective as a cigarette substitute, and millions of lives could be saved.

For that to happen, adults who otherwise would continue to smoke need access to nicotine products that are less harmful alternatives to cigarettes.

Among the leaders of change are public health organizations and regulatory bodies, whose opinions and decisions impact everyone involved. Many scientific experts and public health organizations support the role of tobacco harm reduction as a complement to existing tobacco control measures. They also recognize the important role of nicotine in tobacco harm reduction to help smokers transition away from the use of cigarettes.

The U.K.'s Royal College of Physicians has said: "Nicotine is not [...] in itself a highly hazardous drug [...] It is inherently unlikely that nicotine inhalation itself contributes significantly to the mortality or morbidity caused by smoking. The main culprit is smoke and, if nicotine could be delivered effectively and acceptably to smokers without smoke, most if not all of the harm of smoking could probably be avoided."¹

Cigarette



¹ www.rcplondon.ac.uk/projects/outputs/nicotine-without-smoke-tobacco-harm-reduction

Our approach

Nicotine plays a key role in the successful adoption of our smoke-free products. Its presence can help adults who would otherwise continue smoking to switch to less risky alternatives instead. In addition to taste, ritual, and the sensory aspects, nicotine uptake that is comparable to cigarettes is important for adult smokers to accept novel alternatives to smoking. Taking these aspects into consideration, we have researched and continue to develop a portfolio of smoke-free products that are a better choice for adult smokers than continuing to smoke cigarettes.

We are working hard to achieve a future without cigarettes. As society progresses toward the elimination of cigarettes, the most harmful form of nicotine delivery, there needs to also be education and a societal debate about nicotine that is grounded in science. The world will certainly be a better place without cigarettes, but it is difficult to envision how to achieve this in a timely manner without nicotine-containing alternatives that deliver an acceptable sensory experience.

In this domain, we are acting on three axes:

1. We continue to analyze the risks and potential benefits of nicotine use when not in combination with combusted tobacco and share our findings to encourage a science-based debate on this important societal question. More information can be found in our [eighth Scientific Update](#), which is dedicated to a review of nicotine.
2. We understand the need for, and actively work toward, commercializing tobacco and other nicotine-containing products responsibly. We aim to guard against marketing and sales of our smoke-free products to nonsmokers and minimize access for underage purchasers. Our commercialization practices support this business vision: To make adult smokers aware that better alternatives to cigarettes exist and to move those who otherwise would not quit cigarettes to our smoke-free products. Doing this responsibly by directing our marketing and sales activities toward adult smokers and providing them with accurate and relevant information about our products is fundamental to our long-term success. Read more about our sales and marketing practices [here](#).
3. We conduct post-market studies to understand how our products are used and by whom. Such studies verify the results of our premarket perception and behavior assessments and monitor whether current adult smokers switch to the products, as well as whether never or former smokers use them. By conducting post-market studies, we are able to evaluate potential changes in prevalence; assess initiation, relapse, and complete-quit rates; and compare the use of cigarettes and smoke-free products.

Analyzing the risks and potential benefits of nicotine use

What is nicotine?

Nicotine occurs naturally in tobacco and, at significantly lower levels, in some other plant varieties from the Solanaceae family, which includes tomatoes, potatoes, and eggplant. It is possible to extract nicotine from tobacco, as is done to derive the nicotine contained in nicotine replacement therapy (NRT) products and e-liquids for e-cigarettes. It is also possible to produce synthetic nicotine. While this process is relatively costly, there are an increasing number of products (e-liquids and nicotine pouches) that are now using synthetic nicotine.

The route of nicotine administration (e.g., via the lung, mouth, or skin) influences the speed and amount of nicotine uptake into the body. When tobacco smoke or e-cigarette aerosol is inhaled into the lung, it is rapidly absorbed into the bloodstream and can reach the brain as quickly as 10–20 seconds after the puff is taken. Nicotine from oral tobacco products (e.g., snus, nicotine pouches, NRT gum) is absorbed into the bloodstream through oral tissues, and the nicotine concentration in the blood rises gradually, reaching a plateau in about 30 minutes. The rise in brain nicotine concentration is slower compared with the inhalation route. A certain amount of the orally administered nicotine is swallowed and absorbed, mostly in the small intestine, before passing to the liver, where it is metabolized (i.e., transformed to facilitate excretion of nicotine from the body). Nicotine, when absorbed through the skin, reaches a plateau concentration in the blood more slowly than via other routes of administration. However, the level typically is maintained for a longer period.

Once nicotine is absorbed into the circulatory system, it is distributed to all body tissues and organs, including the brain. There, nicotine binds to specific receptor molecules, mimicking the actions of a naturally occurring brain chemical, the neurotransmitter acetylcholine. Nicotine is metabolized mainly in the liver. Nicotine absorbed via the lung and oral tissues reaches the brain directly without first passing through the liver to be metabolized, whereas nicotine absorbed via the gut passes first through the liver to be metabolized and is partially excreted before reaching the brain.

Nicotine and addiction

Nicotine is an addictive chemical compound present in tobacco and tobacco products. But the addictive properties of smoking involve a more complex interaction of factors than nicotine alone. Ritual, the sensory experience, and social experiences also play a significant role in addiction. Exposure to nicotine and the extent of its effects can also be influenced by individual differences in smoking behavior, metabolism, body mass, and genetics.

Continual use of nicotine may lead to dependence or physiological adaptations to maintain homeostasis, which are most evident in the emergence of withdrawal symptoms experienced during cessation. In addition to other physiological responses, long-term use of nicotine can induce changes in the brain's reward and stress systems, which may manifest as anxiety, dysphoria, and other negative affect states during long-term withdrawal. Physiological dependence, coupled with altered responses from the reward and stress system, can make quitting very difficult.

The rapid uptake and delivery of nicotine to the brain's reward system via lung delivery is thought to be a primary reason for the addictive potential of cigarettes and other inhaled tobacco products. When someone smokes a cigarette, the nicotine levels peak quickly (in about six to 10 minutes), and then the level of nicotine drops fairly rapidly as it is metabolized. Most nicotine replacement therapies do not provide this same pharmacokinetic profile, making them less likely to be addictive but also less likely to satisfy smokers.

Two critical factors are the dose and rate of nicotine delivery. NRTs and other cessation products can help address nicotine withdrawal symptoms. The use of NRTs is recommended for eight to 12 weeks, although use for six months or longer may be necessary to achieve optimal quit rates. It makes sense to use NRTs to support smoking cessation for as long as the individual feels at risk of relapse. NRTs, however, are not as satisfying as cigarette smoking. Firstly, they do not provide the ritual, sensory experience, and social components that complete the experience of consuming nicotine via smoking. Secondly, the route and speed of absorption of nicotine is different: Often, the NRTs that rapidly deliver high doses of nicotine, such as sprays and inhalators, are more satisfying to smokers than are those that slowly deliver nicotine at much lower doses, such as gums and patches.

Nicotine in our heat-not-burn product

For adult smokers who would otherwise continue to smoke, scientific innovation provides increasingly better ways to deliver nicotine while preserving the perceived benefits and enjoyment for the consumer.

Nicotine delivery from smoke-free products can resemble that of a cigarette; thus, these devices tend to be much more satisfying for those switching to a less harmful substitute to cigarette smoking. Our IQOS heat-not-burn product is a smoke-free alternative for adult smokers who would otherwise continue smoking and is not a smoking cessation product.

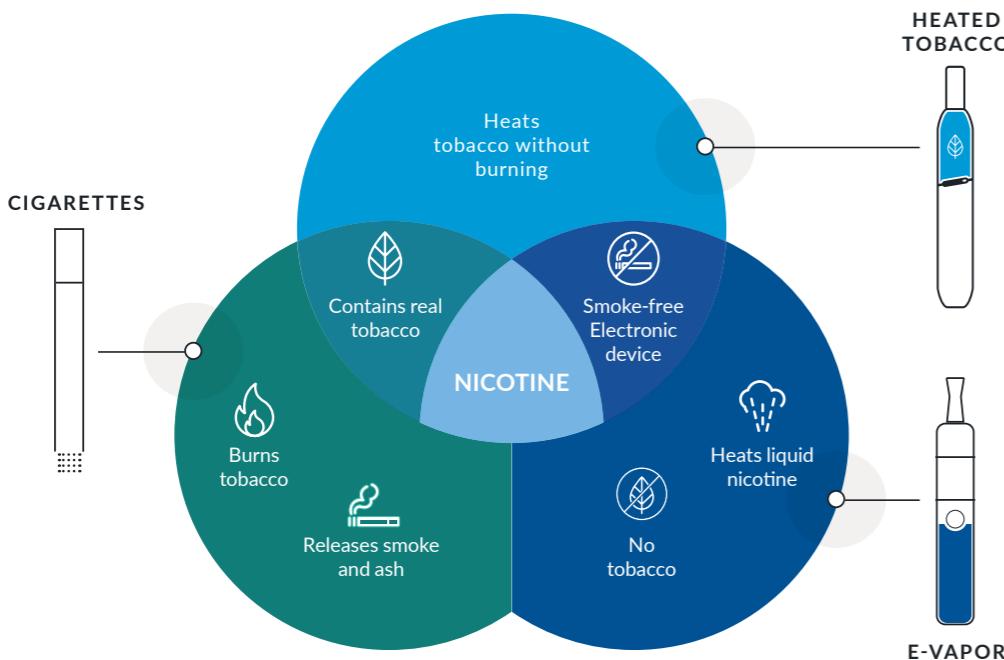
Nicotine plays an important role in encouraging adult smokers to switch from cigarettes to better alternatives such as IQOS. Therefore, it is important for IQOS to have a nicotine delivery profile similar to that of a cigarette. In two studies conducted in Japan, the peak concentration of nicotine in the blood occurred about six minutes after starting IQOS use and reached more than 88 percent of the level attained with cigarettes. It, therefore, has an addictive potential similar to cigarettes. But at the same time, IQOS has the potential to be a satisfying alternative to continued smoking, the most harmful form of nicotine consumption.

After reviewing the scientific package on IQOS, the U.S. Food and Drug Administration (FDA) concluded, “[Pharmacokinetic] studies show Marlboro, Smooth Menthol, and Fresh Menthol Heatsticks have nicotine delivery, addiction potential, and abuse liability similar to combusted cigarettes. This is potentially beneficial for smokers trying to switch to IQOS as they are more likely to have satisfactory results and not resume [combusted cigarette] smoking.”²

Therapeutic delivery of nicotine

The public health and scientific communities continue to explore ways in which nicotine, when isolated, can be used as a potential therapeutic compound.³ Scientists are studying nicotine as a possible active ingredient in pharmaceutical applications for the treatment of certain disease states as it could confer specific health benefits. These include treatments for patients suffering from schizophrenia, depression, and anxiety disorders. Scientists are also studying the effects of nicotine on debilitating diseases and disorders such as Tourette's, Alzheimer's, Parkinson's, attention deficit hyperactivity disorder (ADHD), and others.

We believe a greater societal focus on the health impact of nicotine in isolation is needed, and we plan to play our part in furthering this understanding through our research.



² The FDA does not endorse or approve tobacco products.
³ www.health.harvard.edu/newsletter/article/Nicotine_It_may_have_a_good_side

Uphold business ethics and integrity

We conduct business ethically and with integrity. We clearly define the ethical and compliance expectations we have for ourselves and for the third parties with whom we work, and we back up these expectations with governance and management systems to ensure we deliver on them.

Managing ethics is an integral part of any successful business operation, and major decisions that affect a company's bottom line often involve questions of ethics. We all depend on systems that apply laws fairly and protect fundamental rights. Without the rule of law, it is difficult for companies to operate successfully. Issues such as corruption, unfair competition, and unsafe workplaces undermine societal well-being.

While following the rules is critical, it is sometimes not enough. It can be possible to behave unethically even while complying with the law or other rules. Good ethical judgment helps us guard against such failures and build lasting business success.

Our approach

We understand that PMI's reputation comes from the sum of our actions. To ensure we conduct business ethically and with integrity, we maintain an Ethics & Compliance (E&C) program. The program is led by our Vice President and Chief Ethics & Compliance Officer, who reports to PMI's General Counsel and also reports periodically to the Audit Committee of the Board of Directors.

Our [Guidebook for Success](#) (PMI's code of conduct) sets clear standards and expectations. Its mandatory provisions apply to all PMI employees, officers, and directors. Key risk areas addressed in this document include anti-bribery and anti-corruption, anti-competitive practices, conflicts of interest, information protection security and data privacy, responsible marketing and sales, scientific integrity, supply chain responsibility, and workplace integrity. Internal policies—called Principles & Practices—provide more-specific guidance on these topics.

Evaluating our Ethics & Compliance culture

We formally evaluate our E&C culture periodically, using a global online survey to understand employee experiences and attitudes related to ethical business conduct. For the last 15 years, PMI has been surveying its global employee population every two to three years, including most recently in September 2021.

According to the 2021 E&C survey results, PMI is stronger on ethics than at the time of the 2018 survey. The global survey results showed improved or maintained performance across all categories of questions. Most notably, we saw very high awareness among respondents of the company's E&C program, our Guidebook for Success, our compliance helpline, and the duty to speak up should concerns arise. Analyzing the survey results helps us identify potential improvement opportunities. Current focus areas include reinforcing the importance of employees speaking up when they observe potential misconduct, even if they think someone else will report it, and enhancing leadership communication on E&C topics.

In addition to the employee surveys, we periodically work with third parties to assess elements of our E&C program, which we did in 2021 and plan to do again in 2022.

Employee communication and training

We use training and communication to help employees understand which standards are relevant to their roles and how to apply them in their daily work. We reach broadly across the organization using multiple formats and languages.

In 2021, 71.3 percent of employees received training related to topics in the Guidebook for Success.¹ Employees and third parties completed a total of 261,890 training sessions (2020: 198,170).² Key topics addressed included workplace integrity, speaking up, conflicts of interest, responsible marketing, privacy, intellectual property, insider trading, information protection, competition law, and anti-corruption. Training completions for 2021 continue to be recorded in the first quarter of 2022, so a slight increase in these figures is expected.

Speaking up

At PMI, there are many ways to speak up about potential misconduct, get help on an E&C matter, ask a related question, or recommend an improvement. Mechanisms include, but are not limited to, the following:

- a. E&C in-person contacts (e.g., Regional Director, Cluster Head, E&C Country/Market Head)
- b. PMI Global E&C email address
- c. PMI Compliance Helpline (online or by telephone), which is operated by a third party and available 24 hours a day, seven days a week, in all languages spoken at PMI (employees may use the helpline anonymously, subject to local laws and regulations).

PMI also has implemented a Global Speaking Up Policy, the principles of which are reinforced in the Guidebook for Success (PMI's code of conduct) and in all PMI compliance policies.

¹ As of 2021 the calculation is based on the 55,276 employees maintained in PMI's central HR system.

² 2021 training completion data as of March 17, 2022.

There is a strong speaking-up culture at PMI, with most employees communicating directly with the E&C department and disclosing their identity when speaking up.

Specifically, in 2021, only 22 percent of the reports received by E&C were submitted anonymously. According to the 2021 E&C results, the vast majority of employees are aware of PMI's anonymous reporting channels and do not fear retaliation for reporting potential misconduct. These statistics indicate that employees feel comfortable speaking up and sharing their names.

In addition, the E&C team continues to increase its outreach to employees on PMI's speaking-up program. As part of our Inside E&C initiative, for example, the department shares quarterly statistics with employees globally about speaking-up reports, compliance violations, and disciplinary actions, as well as anonymized real-life examples of misconduct and advisory guidance provided in response to employee questions.

Furthermore, in 2021, E&C launched the #UnmuteYourself campaign to encourage speaking up across all regions. The initiative was championed by members of the Company Management team and resulted in management teams and employees across PMI regularly referring to speaking up during business calls.

Compliance investigations

At PMI, we take all reports received through our speaking-up channels seriously and are committed to following up objectively and in a timely manner. We investigate all reports that raise compliance concerns, and we involve other functions or line management to help resolve other concerns. Corrective measures are implemented to address investigation findings, and disciplinary actions are calibrated against past actions to keep the process fair. When investigating suspected E&C violations, trained personnel adhere to PMI Investigations Standards, which are designed to ensure a fair and respectful process. We run a post-investigation quality assurance program to get feedback on how well we met these standards. We also have a Retaliation Check program to detect, remedy, and prevent retaliation against people who speak up, which includes regular follow-ups with employees who have made a report. We also run checks to ensure year-end performance assessments are fair, and we review substantial employment decisions regarding all people identified as at risk of retaliation before the decisions are implemented.

We received 929 reports of suspected misconduct in 2021 (2020: 762). Around 43 percent of the matters that were closed in 2021 did not involve a compliance allegation and were resolved through E&C advisory services or referred to line management or appropriate departments, such as our People & Culture teams, for further action.

In 2021, we investigated and closed 508 cases that involved potential violations of PMI's Guidebook for Success and compliance policies (2020: 431). At least one violation was substantiated in 46 percent of these cases (2020: 54 percent), with "theft and fraud" accounting for 30 percent of all violations (2020: 22 percent), "workplace integrity" accounting for 22 percent (2020: 30 percent), and violations related to speaking up (such as failure to speak up or obstructing an investigation) accounting for 14 percent (2020: 20 percent). Corrective measures and disciplinary sanctions were implemented following these investigations. Specifically, in 2021, termination of employment accounted for 26 percent of the disciplinary actions issued from these cases, while suspension accounted for 5 percent, written warning for 32 percent, and verbal warning or counseling for the remaining 27 percent.



Looking ahead

Ethics and integrity are core components of our culture at PMI. We are committed to our employees, our customers, our shareholders, and our communities to conduct business in an ethical manner and in compliance with all applicable laws and regulations. In 2022, as our company progresses further on its transformation journey, we plan to build on this solid foundation and will continue to implement and enhance our global ethics and compliance program. Among our initiatives for this year, we will launch a new Code of Conduct, roll out global training on key compliance risks, and continue to encourage our employees to speak up in case of concerns.

Suzanne Rich Folsom, Senior Vice President & General Counsel

Preventing bribery and corruption

Our standard is clear: We do not bribe anyone, anywhere, for any reason. We recognize that our refusal to participate in corrupt activities may make doing business more difficult in some markets, but bribery is unacceptable at PMI.

Our anti-corruption standards regulate our interactions with government officials and entities, as well as with private individuals, both directly and through third parties. These standards prohibit all forms of bribery and facilitating payments. They also describe acceptable forms of giving and receiving gifts or entertainment, govern political contributions, and set clear pre-approval, reporting, and registration requirements.

We publicly disclose the very limited political contributions we make on [PMI.com](#), and we follow lobbying regulations.

Respect human rights

Protecting and promoting the rights of our stakeholders is paramount. As a global company, we work on upholding human rights within our organization and across our value chain. We work to ensure that human rights are respected and upheld by our business partners, including our suppliers.

Human rights are inherent to the dignity of human life and a prerequisite for society to prosper. The United Nations Guiding Principles on Business and Human Rights (UNGPs), as well as academia and civil society, recognize that businesses can impact human rights both positively and adversely and should account for and manage these impacts. At PMI, fostering the promotion and continuous integration of human rights considerations into our strategy, policies, and business practices is not just the right thing to do; it also helps anticipate evolving legal requirements and minimizes our financial exposure and the risk of supply chain disruptions. Further, safeguarding and promoting human rights within our value chain creates the basic environment and conditions in which our stakeholders, including our employees and workers across our supply chain, can thrive and create value. In combination with a positive, inclusive culture and sound management, this provides the space and opportunity needed for our key business enablers of innovation, collaboration, continuous improvement, and execution.

Our approach

Across our value chain, we aim to address our adverse impacts and maximize opportunities to drive positive change for people. Setting a strong foundation and integrating mechanisms that promote respect for human rights into our organization are essential. While this can be challenging given the scope and complexity of the issues and the breadth of our operations, we believe that human rights are an absolute and universal requirement—a requirement we are committed to upholding.

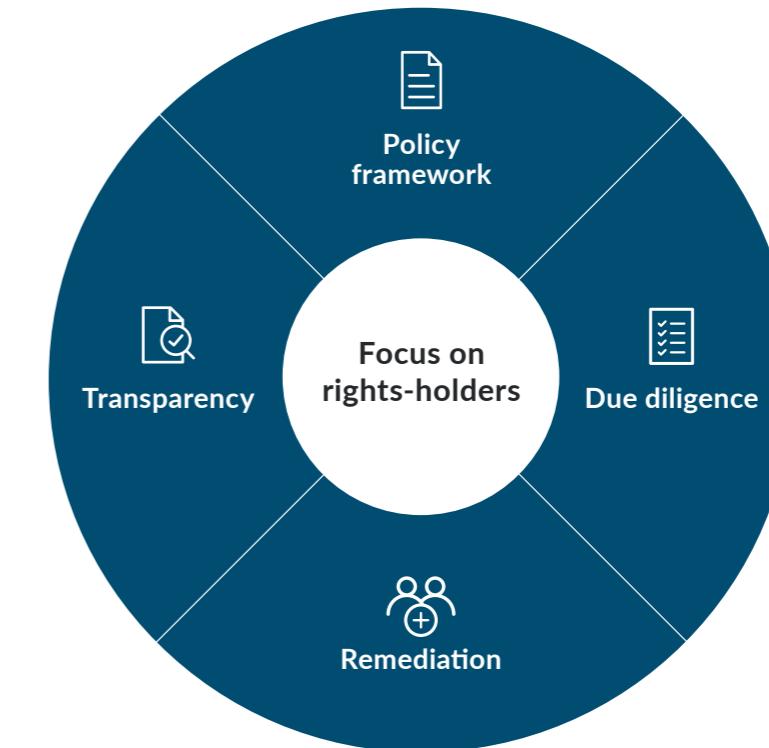
We seek to continuously improve our policies and practices with respect to identifying and addressing risks and impacts to “rights-holders” across our value chain by securing our supply of raw materials responsibly.

To strengthen our due diligence framework, proactively identify risks, and mitigate potential adverse impacts in our operations and value chain, we have set an ambition to conduct human rights impact assessments (HRIAs) in the 10 highest-risk countries in which we operate by 2025. Our HRIAs are carried out by independent expert organizations and follow a formal process aligned with the UNGPs. They result in tailored action plans, which we monitor and report on.

Our efforts to safeguard and promote human rights underlie many of the activities and programs described throughout this report. A dedicated cross-functional team at our central operations coordinates our approach.

This umbrella approach is grounded in the UNGPs and centered on four pillars:

- **A sound policy framework:** Our work is governed by [PMI's Commitment to Human Rights](#), which is complemented by other PMI policy instruments such as our [Guidebook for Success](#), [Responsible Sourcing Principles](#), [Good Agricultural Practices](#), Marketing Codes, and internal policies such as our Workplace Integrity Policy. Together, these mechanisms guide the implementation of PMI's Commitment to Human Rights along our value chain. Awareness-raising and training help us embed those instruments and an ethos of respect for human rights within our corporate culture.
- **Remediation:** We implement measures aimed at addressing adverse impacts and maximizing opportunities to drive positive change for people across our value chain. We seek to collaborate with civil society organizations, governments, and the private sector on initiatives to design and deploy strong and impactful solutions.
- **Transparency:** A complex global value chain brings potential human rights risks that we need to understand, manage, and continuously address. Transparency on our progress and challenges through our annual reporting and targeted communications is key to our approach.
- **Rigorous due diligence:** We have robust programs and processes in place to identify our adverse impacts across our value chain. These include our company-wide integrated risk assessment, human rights saliency mappings, and HRIAs. We also deploy targeted due diligence programs focused on areas of potential risk, such as in our tobacco and electronics supply chains, as well as external assessments and verifications.



Moving forward, we will increase our reach by translating the modules into additional languages.

In addition, we hosted tailored training sessions for the executive teams in our Middle East & Africa Region to raise awareness of human rights risks there and address them proactively.

Identifying human rights risks in our electronics supply chain

Following the refresh of our global human rights saliency mapping in 2020 (see details in our [2020 Integrated Report](#)), we undertook an analysis of our electronics supply chain, which we completed in early 2021.

In collaboration with Article One, who are leading advisers in the business and human rights arena, we mapped and prioritized salient human rights risks for our extended electronics supply chain, which includes our electronics manufacturing services and mechanical and electrical components. This assessment validated some of our existing assumptions around potential risks and surfaced new ones that were less apparent to us. These ranged from working hours and wage-related risks in the subcontracted services supply chain, to the responsible sourcing of minerals, metals, and plastics.

We then assessed our current risk-mitigation instruments and mechanisms and benchmarked them against international standards and other industry practices. This allowed us to develop recommendations to strengthen our risk identification and response and further build our capacity to address salient risks.

The exercise demonstrated that our visibility and risk management was robust at the tier 1 and tier 2 supply chain levels, as well as for specific minerals—such as cobalt and tin, tantalum, tungsten, and gold (3TGs)—at the tier 3 level and beyond. It highlighted PMI's potential to influence human rights performance through direct engagement and capacity-building activities, as well as through the continued integration of circularity and social responsibility principles in our product development processes. This exercise also affirmed that our visibility into the upstream plastics supply chain and subcontracted services contracted by our tier 1 and tier 2 suppliers remains limited. Accordingly, this is an area of opportunity for PMI to use its leverage to advance respect for human rights further upstream in the electronics supply chain.

Conducting human rights impact assessments in our highest-risk markets

A critical component of our due diligence framework is having independent expert organizations carry out HRIAs in our highest-risk markets in accordance with the UNGPs. After each assessment, the third-party organization presents its findings and suggests ways to address issues identified. The report is shared with the corresponding market leadership team, which develops a time-bound action plan in collaboration with the relevant corporate function, assigning responsibilities for implementation and progress measurement at the local level.

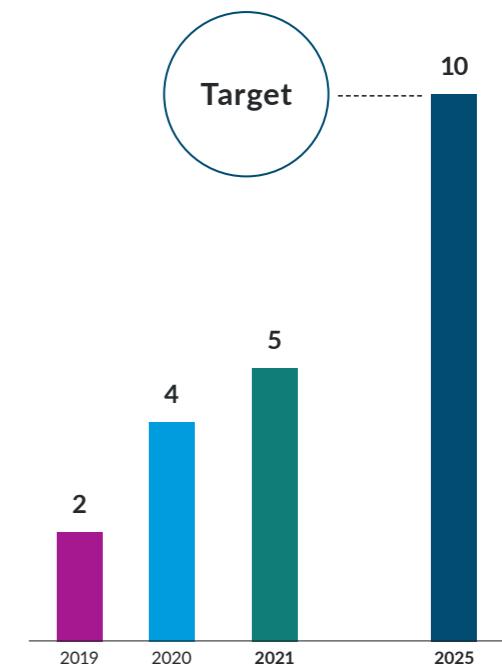
The cumulative learnings from each HRIA we have conducted since 2018—along with the monitoring of their action plan implementation—help us to become more demanding, professional, and sophisticated in our approach. We aim to assess our 10 highest-risk markets by 2025.

The completion of a second HRIA planned for 2021, in Malaysia, had to be postponed to 2022. Because of the COVID-19 pandemic and related precautions, the exercise is now designed to be conducted virtually.

This has necessitated pre-assessment trainings and capacity building to ensure our local colleagues are sufficiently familiar with the concept and purpose of the assessments. Involving our local teams in the HRIAs is essential to maximize the value these assessments bring both to the market and to the rest of our organization. Each HRIA informs the way we operate and inspires adjustments to ensure the protection and promotion of human rights.

The HRIA in Malaysia will incorporate potential human rights risks resulting from our downstream supply chain for the first time, including some of our IQOS retailers. We kicked off the HRIA in September 2021 and plan to communicate findings in our next report. Future assessments will be conducted in person once the public health situation allows it.

Throughout 2021, we continued monitoring the implementation of actions recommended by previous HRIAs in [Mexico](#), [Mozambique](#), [Russia](#), and [the Philippines](#). The local teams are strengthening their internal policies and practices as they execute their action plans.



CASE STUDY

Assessing human rights impacts in the tobacco supply chain in Turkey

In 2021, we conducted our fifth HRIA since 2018.

Aiming to maintain our leadership in promoting and protecting human rights, we took a collaborative approach by engaging in a multistakeholder tobacco leaf supply chain assessment in Turkey. This unique industry-wide initiative seeks to better address human rights issues on the ground by identifying synergies between stakeholders.

→ [Read more in our case study](#)



Empowering our low- and medium-risk countries to assess human rights impacts

To ensure all countries are assessed, not just those at highest risk, we piloted a new type of HRIA process and toolkit in 2021 aimed at enabling our medium- and low-risk country affiliates to self-identify salient human rights risks in their markets and develop action plans to address them.

The tool was piloted in our Benelux market (Belgium, the Netherlands, and Luxembourg), with a focus on identifying human rights risks before they could have a significant adverse impact. The Benelux team developed a practical action plan with short-term objectives that allowed it to meet and exceed evolving standards and stakeholder expectations across all three markets.

Our affiliate in Mexico also participated in the pilot phase of the human rights self-assessments. This exercise had a two-fold objective: To account for potential risks related to the pandemic and to evaluate the status and progress of the action plan implementation following the 2018 HRIA (read more [here](#)). The self-assessment in 2021 confirmed that we had strengthened our practices across all areas identified in 2018. Moreover, engagement with external and internal stakeholders shed light on the need to focus on three additional topics: (1) protecting employees' work-life balance while working from home; (2) promoting equal conditions for women and men, considering that women are often responsible for childcare; and (3) supporting employees' mental health.

We will fine-tune our self-assessment toolkit with learnings from these pilots prior to rolling it out more broadly in the second half of 2022.

Looking ahead

We remain committed to respecting and promoting human rights across our value chain. In 2022, we plan to review our Commitment to Human Rights to identify potential opportunities to strengthen it. We will also translate our human rights e-learning into additional languages spoken at PMI to roll it out further across our organization. We plan to complete our HRIA in Malaysia, expanding it to assess downstream impacts, and we expect to conduct an HRIA in one additional market in 2022. In addition, we will fine-tune our human rights self-assessment tool and plan to deploy it in several markets during the year. We will analyze the recommendations generated by the human rights saliency mapping of our electronics supply chain and leverage our Responsible Business Alliance (RBA) membership to address suppliers' RBA audit findings and other areas of improvement.

Exploring climate justice—the intersection of human rights and climate change

We recognize that climate change impacts not just the environment but also people's economic and social well-being. Climate change has exacerbated human rights issues and disproportionately affects the most vulnerable people around the world. In 2021, we commissioned a briefing paper (available [here](#)), prepared by our human rights advisers Article One, to explore where and how the issues of climate change and human rights intersect in the agricultural supply chain. This is an essential step in developing coherent and inclusive strategies across our supply chain to help mitigate the impacts of climate change.

Grievance mechanisms

Providing access to effective grievance mechanisms in our operations and across our supply chain is a key requirement of the UNGPs and a core element of our due diligence approach.

Internally, we maintain clear policies, run regular training, and work to ensure that robust processes are in place to encourage employees to speak up if things don't seem right or can be improved (read more [here](#)). The same applies to our supply chain, where our Responsible Sourcing Principles (RSP) specifically ask suppliers to provide their workers with easily accessible ways to raise concerns, free from risk of retaliation. In our tobacco supply chain, our Agricultural Labor Practices (ALP) Code states: "Workers should have access to a fair, transparent, and anonymous grievance mechanism." Such mechanisms are available in some countries where we source tobacco and concerns can be raised with field technicians at any time.

We continue to review and look for opportunities to strengthen further the grievance mechanisms that exist in our operations and value chain.

Manage our supply chain sustainably

Our supply chain accounts for a significant portion of our potential social and environmental risks and impacts, which we are committed to identifying, managing, and addressing responsibly.

Our operations rely on securing high-quality, cost-effective, and fit-for-use materials and services from suppliers who are expected to adhere to PMI's environmental, social, and governance (ESG) requirements. In addition to strengthening regulatory compliance and preventing reputational risks, responsible supply chain management enhances our resilience and supports our ability to secure the resources needed to deliver on our company purpose. At the same time, it acts as a lever to make tangible positive contributions to environmental and social issues. We seek to actively engage with our suppliers to minimize our social and ecological footprint, and we strongly believe we can bring positive value to those with whom we collaborate.

Our approach

We aim to purchase goods and services from suppliers at best value, commensurate with business requirements, while appropriately managing supply, financial, legal, quality, and sustainability requirements. We seek continuously to identify and address current and potential risks while also seizing opportunities to create a positive impact in the communities in which we and our suppliers operate, thereby increasing the sustainability performance of our supply chain. We work with suppliers and contracted tobacco farmers to achieve a solid economic performance and tangible environmental and social improvements.

Our approach to sustainable supply chain management is built on the following core principles:

- **Proactive engagement** is key to fostering open and transparent relationships with our suppliers in which expertise is shared and built together.
- We take a **risk-based approach**, deploying tailored tools and interventions and prioritizing areas in which we can have the greatest impact.
- We seek to support our suppliers in **continuously improving** their sustainability performance and achieving the highest standards of compliance.
- We leverage our reach and understanding of our supply base to implement **impactful programs** and accelerate progress in our sustainability corridors, such as our efforts to tackle climate change, protect nature, and promote fair working conditions.

Our supply chain sustainability strategy is grounded in our [Responsible Sourcing Principles](#) (RSP), which align with the UN Guiding Principles on Business and Human Rights (UNGPs), the Ten Principles of the UN Global Compact, and International Labour Organization (ILO) Conventions. The RSP, together with its corresponding [Implementation Guidance](#), detail our ambitions and set process and performance standards for our suppliers of materials and services, from the direct materials used in manufacturing our products to the goods and services required to run our business.

We expect all our suppliers—and in particular our critical suppliers—to demonstrate high sustainability performance and compliance with the expectations of our RSP and Good Agricultural Practices (GAP). And we have set a commitment to source sustainably from all our critical suppliers by 2025.

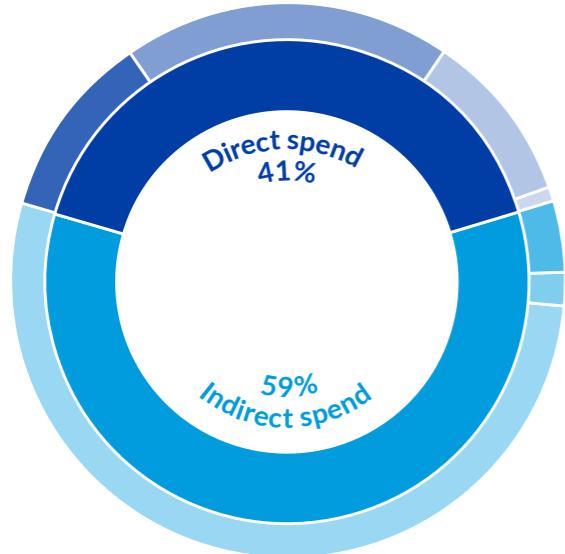
Adherence to our RSP—and GAP for our tobacco supply chain—is built into our contractual agreements with suppliers. We monitor the activities of our critical suppliers through a suite of tools, including third-party assessments, on-site audits, and field visits.

We apply tailored due diligence instruments and mechanisms within specific segments of our supply chain. In our tobacco supply chain, our work is governed by GAP and our Agricultural Labor Practices (ALP) Code, which are operationalized at farm level by field technicians working year-round with the farmers contracted by PMI and our suppliers.

Our Procurement organization leverages the work of the Responsible Business Alliance (RBA)—the parent organization of the Responsible Minerals Initiative (RMI)—in our non-tobacco supply chain and of EcoVadis in our direct materials, indirect materials and services, technical procurement, and advanced procurement supply chains.

Our RBA membership and EcoVadis partnership allow us to operationalize and implement due diligence in these complex and dynamic segments of our supply chain.

2021 Supply chain spend



DIRECT SPEND 41%

	DIRECT SPEND	41%
Tobacco leaf		11%
sourced from approximately 254,000 contracted farmers across 21 countries		
Direct materials		19%
used to produce and package our products (e.g., cellulose acetate tow for cigarette filters, paperboard for packaging, and nontobacco agricultural products such as menthol and guar gum)		
Electronic devices		10%
and accessories for heated tobacco and vapor products		
Advanced procurement		1%
to establish capabilities and supply sources to support PMI's innovation pipeline		

INDIRECT SPEND 59%

	INDIRECT SPEND	59%
Technical procurement		4%
to source the manufacturing equipment used in our factories		
R&D expenditure		2%
enabling us to conduct advanced research (e.g., by acquiring clinical trials services and laboratory equipment)		
Indirect materials and services		53%
necessary to run our business, such as IT, office equipment, and consulting services		

The sustainable sourcing of goods and services involves a broad cross-functional collaboration within PMI, driven by our Procurement and Leaf teams and overseen by our Senior Vice President, Operations.

Overview of our supply chain in 2021

With over 29,000 tier 1 suppliers across more than 180 markets, our supply chain spend amounted to approximately USD 11.1 billion in 2021.

Our global supply chain is organized into two main streams—direct spend (focused on materials used in the manufacture of our finished products) and indirect spend (focused on goods and services necessary to operate our business)—and seven categories:

Over the years, the management of our supply chain has proven sufficiently robust, flexible, and efficient to support our operations' evolving needs and PMI's business transformation. Currently, our global supply chain supports our two main finished product streams, with a continued increase in the proportion of resources allocated to smoke-free products versus combustible cigarettes (smoke-free products accounted for 35 percent of our supply chain spend in 2021, up from 33 percent in 2020).

From a sustainability standpoint, the supply chain categories exposed to the highest risks pertain to our direct spend and include:

- Tobacco production across Africa, Asia, and South America, with the main risks in the areas of working conditions, child labor, climate change, access to water, and the socioeconomic well-being of farming communities
- Electronics manufacturing, with the main risks relating to working conditions
- Paper and pulp-based materials, with the main risks linked to deforestation, biodiversity loss, and climate change.

During the year, the supply of direct materials has been under pressure due to high demand for primary commodities, a global transportation shortage, congestion, and cost inflation, mainly driven by energy prices. Thanks to robust business contingency plans and the efforts of our Operations team, we have been able to manage shortages to ensure stable production in our manufacturing centers. We have also expanded our supply base to secure additional supplies and mitigate the impact of inflation. Regrettably, the prolonged impact of the global semiconductor shortage limited our ability to realize the full potential of IQOS development and growth in 2021.

Monitoring the sustainability performance of our critical suppliers

Increasing the visibility of our suppliers' sustainability performance and implementing risk mitigation and performance improvement measures are priorities. In recent years, we have taken critical steps to achieve and deploy tailored due diligence instruments across our direct materials, electronics, and tobacco supply chains.

Our efforts have translated into significant progress toward our 2025 ambition: During 2021, 83 percent of our critical supplier spend was sourced sustainably. Sustainable sourcing is determined based on a minimum threshold score of 45 out of 100 in EcoVadis (for suppliers of direct materials) or 125 out of 200 in RBA (for electronics suppliers); all tobacco purchased from contracted farmers under the integrated production system is considered to be sustainable.

Critical suppliers are those that manufacture or sell components used in the manufacture of PMI finished products (including direct materials, electronic devices and accessories, and tobacco leaf). In addition to the nature of the component, supplier's criticality is evaluated considering spend segmentation, as well as supply flexibility, as relevant.

Direct materials supply chain

To strengthen our approach in 2021 further, Procurement successfully transitioned our nonelectronics supplier due diligence program to EcoVadis, the leading global service provider of online ESG supplier assessments. This partnership allows PMI to access a vast number of suppliers' ESG scorecards commissioned by EcoVadis users (leading global companies across industries).

During the year, 87 suppliers representing 90 percent of our total direct material spend (excluding tobacco and electronics) were assessed. Of them, 82 percent demonstrated a high sustainability performance and compliance with our RSP, 18 percent were below the compliance level and required to complete a corrective action plan before doing a reassessment in 2022, and only one supplier will require an on-site audit to be conducted in 2022. The areas for improvement mainly related to labor and human rights, followed by environment, ethics, and sustainable procurement.

The fact-based and detailed EcoVadis supplier evaluations help drive continuous improvement in the areas highlighted. These assessments are available on the EcoVadis digital platform, which allows seamless sharing among all supplier and customer participants, creating an effective collaboration ecosystem. To address the identified improvement opportunities, we plan to launch supplier corrective action plans in 2022. This will be followed by reassessments and on-site audits for suppliers that have more gaps to bridge.

In 2021, we also leveraged EcoVadis' broad reach and existing supplier base to assess the sustainability performance of strategic noncritical suppliers in other procurement categories of spend, including indirect materials and services and technical procurement. This allowed us to evaluate suppliers representing 22 percent of our indirect spend.

Electronics supply chain

In January 2021, we reached a major milestone: joining the RBA, the electronics industry initiative for sustainable supply chains. During our first year of membership, we were able to leverage RBA's best-in-class methodologies and tools, including members' audit reports, to enhance significantly the evaluation and performance of our suppliers. To increase their knowledge of best industrial practices and use of RBA tools, we engaged new suppliers in the RBA online training platform.

Overview of our electronics supply chain

As our company continues to transform and build new capabilities, we monitor risks inherent to specific supply chains. A key area of focus is our relatively new and expanding electronics manufacturing supply base in Asia. The electronics supply chain is complex and dynamic and faces specific challenges, including the presence of conflict minerals.

Sustainability performance is an integral part of our balanced supplier program, which consolidates financial and nonfinancial performance metrics and is used in regular management reviews for business decision-making.

It covers tier 1 suppliers and PMI-managed tier 2 suppliers. By recognizing their progress, PMI and suppliers can motivate other companies within the supply chain to improve performance.

To enhance our understanding of the challenges we face, we teamed with Article One to conduct a human rights risks saliency mapping focused on our electronics supply chain. Read more in our human rights section [here](#).



We also participated in RBA's Validated Assessment Program (VAP)—the standard for on-site compliance verification and effective, shareable audits. Under the program, independent external auditors reviewed our electronics suppliers' sustainability performance against our RSP. In all, the RBA digital platform afforded us access to 31 RBA VAP audit reports covering tier 1 and tier 2 suppliers representing 69 percent of our managed electronics supply chain spend. The initial average VAP audit score of our suppliers was 160 out of 200 compared with an RBA average of 127.

In 2022, we aim to achieve higher spend coverage of the RBA audit program to monitor PMI-managed suppliers and ensure concrete corrective actions are in place where needed.

Conflict minerals

In certain conflict-affected and high-risk parts of the world, four minerals used in consumer goods—tin, tantalum, tungsten, and gold (3TGs)—are sometimes mined using forced labor and used to finance armed conflict. As a result, they have become known as “conflict minerals.” Companies are expected to demonstrate how they respect human rights and avoid contributing to conflict in their mineral-purchasing decisions and practices.

Our 2021 conflict minerals submission to the U.S. Securities and Exchange Commission, covering the year ended December 31, 2020, showed that the smelters from which our suppliers source 3TGs for our Covered Products (as defined in the submission) were either conformant with the Responsible Minerals Initiative audit program (244 smelters) or were undergoing the assessment process (12 smelters).

Another mineral, cobalt, is also linked to unethical mining practices. It is a critical raw material in the production of the batteries used in our smoke-free products.

While the quantities of cobalt required for our products are minor compared with the total global market size, since 2019 we have deployed a due diligence program based on the RMI approach and tools to identify and address potential human rights risks in the supply chains of our suppliers. In 2021, all our battery suppliers fulfilled specific reporting requirements, including furnishing information on the smelters from which they source cobalt.

Subsequent due diligence deploying additional RMI tools indicated that, as of December 31, 2021, each of the 15 smelters from which PMI battery suppliers source cobalt were on either RMI's conformant list (11 smelters) or active list (4 smelters).

Tobacco supply chain

PMI defines sustainable tobacco production as the efficient and competitive production of quality tobacco in conditions that limit as much as possible the impact on the natural environment and improve the socioeconomic condition of the people and communities involved in its production.

PMI's Good Agricultural Practices

In our tobacco supply chain, production adheres to our GAP, which define the principles and measurable standards to be met by all those who grow and supply tobacco to PMI. GAP focuses on four areas: governance, crop, environment, and people. The latter is governed by a dedicated ALP Code.

GAP is mandatory for all suppliers of tobacco to PMI and is reflected in the supply contracts of PMI and its affiliates. Whether we source tobacco from farmers directly or through third-party suppliers, our GAP standards and related monitoring and remediation system apply at farm level. The absence of a clear commitment to act on issues identified, or a persistent lack of action and improvement, can lead to contractual implications for both farmers and suppliers. PMI also reserves the right to terminate contracts immediately in cases of severe violations impacting people, the crop, or the environment.

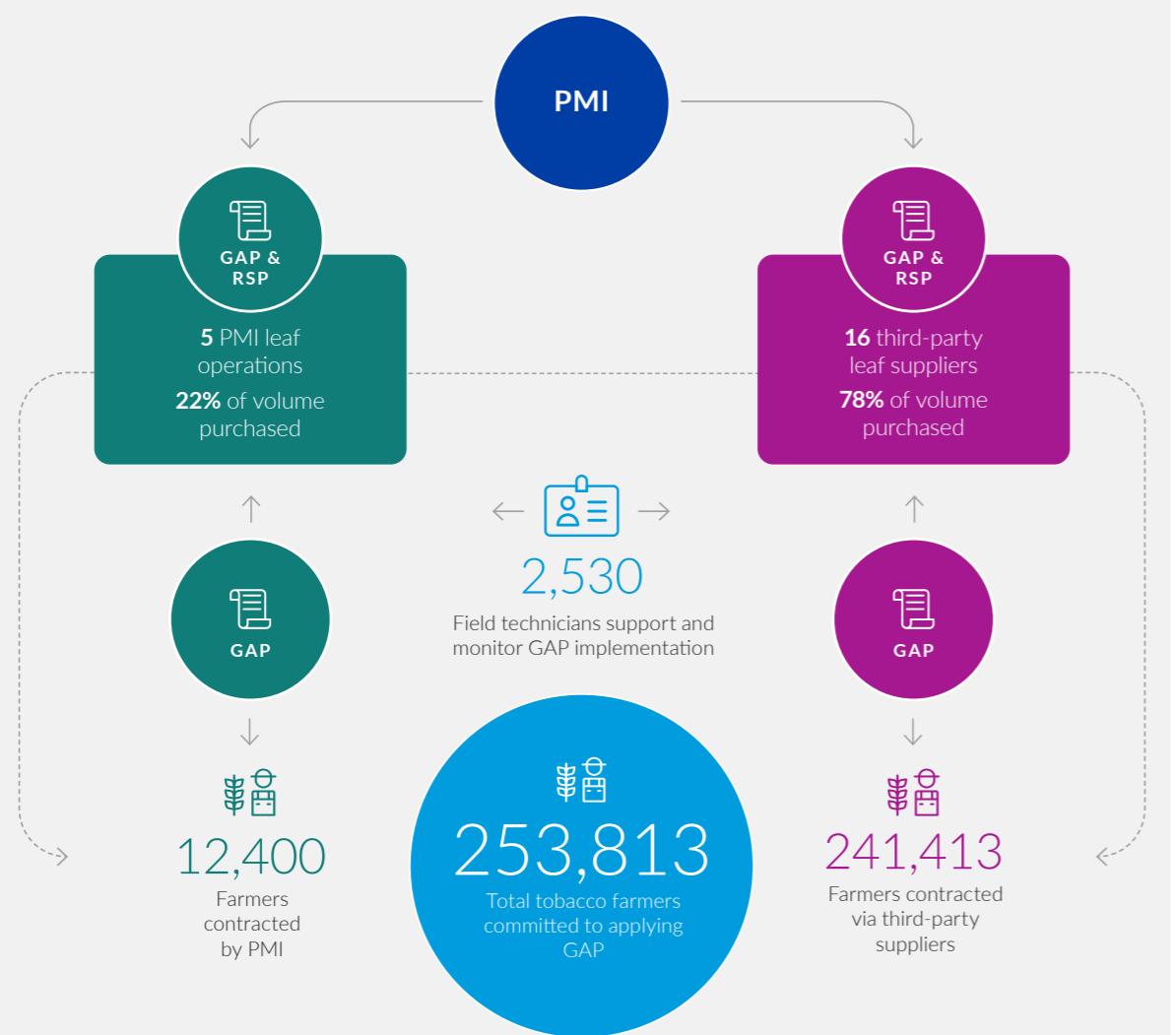
Overview of our tobacco supply chain in 2021

As a consequence of our smoke-free transition, the share of our purchased volume of tobacco directed to the manufacture of combustible cigarettes is steadily declining while the proportion dedicated to the production of consumables for heated tobacco products is increasing. Overall, we are seeing a gradual decrease in total volumes sourced, as heated tobacco products use at most half the amount of tobacco required for combustible cigarettes.

In 2021, we sourced tobacco from 253,813 farmers. These farmers were contracted either directly through our Leaf operations in five countries

or by 16 third-party suppliers. Under our Living Income program (read more [here](#)), we aim to help farmers improve productivity, which may include increasing the average surface of tobacco grown per farm. Coupled with inventories corrections and the gradual decrease in our tobacco requirements, these dynamics led to a sizeable decline in the number of farmers contracted in 2021 compared with 2020.

During the year, we sourced over 291,000 tons of packed tobacco grown across 21 countries, with most of our volume coming from Argentina, Brazil, China, and Indonesia.



Maintaining full traceability and monitoring in our tobacco supply chain

To a large extent, responsible sourcing stems from strong relationships on the ground. PMI's Integrated Production System (IPS) connects leaf suppliers and farmers beyond the customary boundaries of a commercial relationship and enables direct technical support, agronomic advice, financial loans, and various other services. IPS covered 98 percent of our tobacco purchases in 2021. The excluded purchases took place in Indonesia, where an increase in tobacco demand prompted additional purchases, and in Pakistan, where the government mandated the purchase of nonallocated surplus volume to absorb unpurchased tobacco left in the market after the buying season was over.

IPS is vital in providing traceability and visibility in our supply base; it enables the deployment of our GAP and ALP monitoring and remediation system down to the farm level. At the center of this system are field technicians, employed by PMI or our third-party suppliers, who visit each farm on average five to 10 times during the crop season and monitor how well sustainability requirements are applied and commercial processes are working. They provide agronomic assistance, deliver training to farmers, identify and address labor issues, and ensure the implementation of improvement plans.

In 2021, field technicians allowed us to monitor compliance with GAP on all contracted farms. In a few countries facing stringent pandemic-related restrictions, farm visits were adapted and remote support was offered as needed.

The monitoring of GAP implementation can also be performed by third parties, such as specialized NGOs. During the year, we expanded our collaboration in Brazil with Produzindo Certo, a specialist company helping farmers operate more efficiently and sustainably. After a successful pilot carried out in 2020 with the participation of 123 farmers (read more in our [2020 Integrated Report](#)), we extended the scope of the program in 2021 to cover nearly 2,300 farmers. Specialists from Produzindo Certo provided each farmer a social and environmental diagnosis of their farm, as well as tailored action plans highlighting opportunities for growth and development. Those farmers who commit to adopting the action plan and implementing its recommendations will be visited annually by Produzindo Certo technicians, who will provide assistance and monitor progress over time. The feedback received so far from the farmers has been very positive. They recognize that following the recommendations of this team of specialists will better prepare them for the future, making their farms more sustainable, productive, and fully compliant with market demands and local legislation. In 2022, the work continues. Philip Morris Brazil has set an ambitious target to expand the program to the neighboring states of Paraná and Santa Catarina, covering 100 percent of the affiliate's farmer base.

Sustainable Tobacco Program

Since 2016, we have participated in the industry-wide Sustainable Tobacco Program (STP) as an additional way to evaluate our tobacco supplier performance. In 2021, in light of the status and maturity of our programs and the high ambitions we have set to advance socioeconomic conditions in our tobacco supply chain invited us to reflect on what was needed for us to continue making progress. This led us to make the decision to end our participation in the STP as of the end of 2021. This will allow us to better target our resources and efforts to address the most critical challenges we face. We remain dedicated to working closely with our suppliers—who also work with other tobacco manufacturers—to implement meaningful programs. Moreover, we will continue to work directly with other industry players when appropriate to address shared challenges, such as through joint human rights impact assessments (as we did in Turkey this year, for instance; read more [here](#)) and targeted projects.

Fostering collaboration with our network of suppliers

We need to engage and influence a large number of suppliers—companies with different strategies, priorities, and cultures—to onboard them on our sustainability journey and jointly commit to and deliver on our ambitions. Such partnerships are crucial to sustainability, innovation, and growth, allowing us to accelerate progress. To strengthen and broaden these partnerships, we seek continuously to improve our collaborations with these suppliers and our knowledge of their operations.

A dedicated section of our corporate website describes our company, goals, and purpose to current and potential suppliers, reinforcing the expectations we have regarding our RSP.

To increase awareness of sustainability in our supply chain, share learnings, and maximize impact, we host virtual events, webcasts, and training sessions with strategic suppliers globally. These events cover both general and specific topics, from supplier onboarding and our due diligence platforms to our carbon footprint reduction targets, science-based targets, and partnering on our Zero Deforestation Manifesto.

In 2021, for the second consecutive year, we organized a Global Supplier Recognition ceremony, during which we honored those suppliers that demonstrated excellent performance and contributed most to PMI's goals.

For the fifth consecutive year, CDP placed PMI on the CDP Supplier Engagement Leaderboard in recognition of our efforts and progress in engaging our suppliers in tackling climate change.

Looking ahead

In 2022, we plan to review and update our Responsible Sourcing Principles (RSP) to ensure they stay relevant for PMI's evolving business landscape and supply chain, align with our latest sustainability materiality assessment, and incorporate ESG megatrends such as diversity and inclusion, biodiversity, and climate change.

We also intend to expand our partnerships with EcoVadis and RBA and will consider adopting additional tools.

We will continue to use our due diligence tools to assess the performance of our suppliers and support them in making progress toward more sustainable practices. PMI's preferred global auditing companies, which have been vetted to ensure they meet the highest level of competence and integrity, will conduct on-site audits of those suppliers of direct materials who did not demonstrate satisfactory compliance with our RSP in 2021.

Suppliers that did not achieve a sufficient EcoVadis score will be required to run corrective action plans. If a reassessment shows these plans did not lead to an improvement of the supplier score, our global auditing partners will complete an on-site audit on our behalf.

Further, we will work with businesses, partners, and multistakeholder platforms to pave the way toward greater transparency in key ESG areas and improve performance. Our supply chain represents a large share of our environmental and social impacts, so we must work with suppliers to ensure they also improve their performance. In particular, we will seek to gain better visibility on workers' income levels in our supply chain in order to develop a meaningful ambition to foster living wages, as well as on the adoption of stringent science-based targets to tackle climate change.

Safeguard privacy and protect data

In today's data-driven world, data protection and cybersecurity are key. At PMI, we use an array of state-of-the-art security solutions that are supported by experts to help prevent, detect, and respond to events.

Together with our [Guidebook for Success](#), internal policies and guidelines govern our activities. They provide our company with clear guidelines on how to tackle our everyday work in a manner that is consistent with our values. In particular, PMI's global policy on data privacy sets a standard for privacy governance and accountability.

PMI's Global Privacy Program (GPP) sets standards for data privacy and security across markets and functions. It governs the collection, processing, and sharing of personal data by PMI affiliates. Our privacy team regularly reports to PMI's Corporate Risk Governance Committee on the business' adherence to the GPP.

We use information systems to help manage business processes, and collect and interpret data. We also use these to communicate internally and externally with employees, suppliers, consumers, and customers. Specialist third-party service providers manage some of our information systems and we work with internal specialists to protect systems and data from unauthorized access.

Employees and contractors play a fundamental role in protecting data. By being aware of potential threats and reacting to them appropriately, our community can help keep PMI secure. In 2021, we provided our workforce with renewed training to assist everyone with identifying and reacting to key cyber threats such as phishing and social engineering attempts. We complement our training with regular simulated phishing campaigns addressed to our entire workforce to help everyone to practice recognizing and reporting phishing attempts and to identify any weaknesses in advance of any real attempts that the business might face.

We also maintain a popular hub of resources on information security awareness, which is accessible to all employees and contractors. These resources not only focus on good security practices to protect user accounts and data from cyber risk, but also help our team remain vigilant to the indirect risks that can arise from activities like online shopping or connecting to wireless networks. To support our employees working remotely, we have adapted our network and systems and have released guidance to help remote workers to secure internet connections and manage paper documents outside our offices.

PMI has a sophisticated and integrated program to manage cyber risks, to protect PMI's data, and to safeguard the privacy of consumers and customers.

Apply fair fiscal practices

To achieve the common goal of a safe, functional, and prosperous society, governments worldwide must have the financial resources to fund public goods, services, and infrastructure.

Corporate income tax and other taxes can generate necessary revenues and avoid passing the bill for funding today's society to future generations. Taxes can also ensure that societal costs are reflected in a product's price—for instance, in the case of fossil fuels and combustible tobacco products—thereby encouraging consumers and producers of these products to shift to less harmful options.

PMI is a good corporate citizen everywhere we operate. Paying taxes commensurate with our economic activities is not only our duty but the responsible thing to do and a key component of our social contract in every country in which we do business.

The table below provides an overview of the 2021 corporate income tax, excise taxes, VAT, and sales taxes reported by PMI and its affiliates in the countries where we operate. In addition to the taxes reported by PMI legal entities, our importers or distributors in many countries are responsible for paying import duties and excise taxes on our products. Though such payments may not appear in PMI's financial statements, they represent a portion of the product taxes paid by our consumers worldwide and so are also included in the table below.

PMI has implemented governance arrangements that set out clear accountabilities for the management of tax compliance risks and tax planning. We maintain a comprehensive, effective, and practical risk management program with shared best practices, a structured and documented control framework, appropriate planning, and coordinated decision-making.

Our mandatory practices encompass:

- **Roles and responsibilities:** Clear definitions of roles and responsibilities are formalized in each PMI affiliate per PMI's Tax Compliance Program.
- **Escalation to and involvement of the PMI Tax department:** In accordance with PMI's policies, PMI affiliates consult with the PMI Tax department on all important transactions, whether recurring or new, as well as on business structures or operations with other PMI affiliates or unrelated parties, and together determine positions, exposures, or actions regarding material, non-routine tax, or customs matters. Where there is sufficient uncertainty over the tax treatment of a particular transaction or a potentially significant impact, PMI obtains external advice.
- **Tax reporting and procedures:** PMI's Tax Standards and Guidelines are designed to ensure that effective and predictable tax compliance and control measures are in place. Under these policies, all tax filing obligations must be accurately completed on a timely basis and in accordance with applicable laws and regulations.
- **Documentation and tax records:** Under PMI's policies, PMI affiliates are responsible for the appropriate creation and retention of all relevant local tax records.

PMI very much supports the work of the Organisation for Economic Co-operation and Development (OECD) and Group of Twenty (G20) to prevent tax base erosion and profit shifting. PMI's policies and practices ensure that we pay taxes commensurate with our economic activities and substance in each country. We do not engage in aggressive tax planning, abuse tax havens, or have in place any contrived tax structures. We also do not operate "letter box" companies.

PMI conducts all intercompany transactions on an arm's-length basis, in accordance with current OECD principles, and we support greater transparency between taxpayers and tax authorities. When it is relevant and feasible, we have upfront conversations with tax authorities in the countries where we operate. In certain instances, we obtain tax rulings to provide a higher level of certainty not just for PMI, but also for the tax authorities.

However, such rulings are not the only means of securing transparency and certainty. For example, in several countries, we have joined monitoring programs with tax authorities. These programs promote ongoing and transparent relations between taxpayers and tax authorities.

2021 taxes

	Total (USD billion)
Corporate income tax	2.7
Total excise taxes on PMI products	76.8
• Excise taxes on PMI products reported by PMI affiliates	50.8
• Excise taxes reported by our importers and distributors	26.0
VAT and sales tax	9.0

Prevent illicit trade

Eliminating illicit trade is a long-standing priority for PMI.

Illicit trade—including possible contraband and counterfeit smoke-free consumables and electronic devices—is often associated with organized crime, corruption, and human rights abuses. It exacerbates inequality, fuels crime, increasingly serves as a vehicle to launder money through sophisticated trade-based schemes, and even funds terrorism. It also diminishes government revenues, which potentially impedes sustainable development by lowering spending on public services and civil infrastructure. Illicit trade is prevalent in the tobacco sector, with 10 to 12 percent of cigarettes smoked worldwide estimated to be illicit, causing governments to lose USD 40 to 50 billion in tax revenue each year. Illicit trade also has serious consequences for the consumers who purchase these products, particularly due to low-quality standards, unknown composition, and the lack of reliability of counterfeit products.

To succeed in our mission of delivering a smoke-free future, we must ensure there are no illegal actors sustaining a black market for cigarettes and other tobacco products. In a smoke-free future, there should be no place for illicit trade.

You can learn more about our efforts in this area on our dedicated illicit trade prevention page on [PMI.com](#).

Our approach

To combat fakes and prevent the smuggling and counterfeiting of our products, we focus our efforts on securing our supply chain and leveraging technology and innovation to protect our products. These internal efforts are coupled with strong cross-sectoral collaboration. Illicit trade is a high-profit, low-risk crime that needs to be tackled by public-private coalitions able and willing to drive change. We support the objectives and principles of the WHO Framework Convention on Tobacco Control (FCTC) Protocol to Eliminate Illicit Trade in Tobacco Products because we believe that effective regulation is fundamental to achieving progress.

For several years, we have successfully applied a risk-based approach to prevent and fight the diversion of our products. PMI's Anti-Diversion Governance Committee, which includes senior executives from the Finance (central and regions), Risk & Controls, Law, Ethics & Compliance, Commercial, and External Affairs functions, has corporate oversight on diversion risk prevention for our products. We also have a dedicated global team of specialists in illicit trade prevention (ITP).

Progress in 2021

In 2021, we pursued the enhancement of our set of anti-diversion measures and controls, which are deployed in 20 markets identified as high risk for illicit trade. We continued expanding the coverage of our tracking and tracing processes and technologies reaching 140 countries and several factories, covering new fulfillment centers and reverse logistics hubs. We collaborated with partners such as the Munich Security Conference, the International Institute for Strategic Studies, the OECD Task Force on Countering Illicit Trade (TF-CIT) and the BIAC Expert Group on Anti-Illicit Trade, the Italian Institute for International Political Studies, and Rome MED-Mediterranean Dialogues, as well as with nonprofit organizations such as Concordia, to tackle systemic issues.

We also continued to support law enforcement agencies by inspecting and authenticating seized products, performing illicit products forensic evaluation and profiling, sharing intelligence on emerging routes and trends shaping the black market, and training officials on the innovative authentication and security features we use to protect our products. As new technologies emerge, we make it a priority to understand how we can leverage them to eliminate fakes and the contraband of our products, further secure our supply chain, and deter illegal actors from deceiving consumers.

A focus on our smoke-free products

As our portfolio shifts toward smoke-free products, we are incorporating into our internal product standards illicit trade prevention requirements to protect our smoke-free devices and consumables. These requirements may include both visible and invisible elements on the device or critical components and tamper-proof security features.

In addition to product standards, we include strict provisions in our contracts (e.g., anti-diversion and anti-counterfeiting clauses with our distributors and suppliers) and robustly controlled reverse logistics processes for our electronics products based on centralized inspection and recycling. We embed product authentication checks in critical processes such as in-market product return and consumer care processes, as well as at the PMI reverse logistics hubs (CIRCLE), allowing us to identify suspected counterfeit devices and remove them from the supply chain. As we launch smoke-free products in additional geographies, our global ITP experts provide training to relevant markets to raise awareness of diversion and counterfeiting risks.

PMI IMPACT

We also support and fund external organizations through our [PMI IMPACT](#) global initiative, launched in 2016. By sponsoring third-party projects aimed at addressing illegal trade, we are fostering and mobilizing a network of like-minded organizations and institutions around this global issue.

In 2021, PMI IMPACT launched its [third funding round](#). The new round, which will close its call for submissions in August 2022, is focused on a wide range of topics, including capacity building, restorative justice and victim protection, and international cooperation. We also launched a [video series](#) in 2021 explaining the scale and issue of illicit trade, highlighting the role PMI IMPACT plays in this fight, and raising the profile of selected grantees.

To date, PMI IMPACT has allocated a combined USD 48 million for the implementation of 60 projects in 30 countries as part of the initiative's first and second funding rounds.



Looking ahead

Three pillars need to thrive in 2022: public-private partnerships to ensure sustainable solutions, technological innovation as a disruptor of criminal operations, and enforcement that imposes concrete penalties against those involved in illicit activities. We need to work tirelessly to change perceptions and show the real-life consequences of illicit trade because we are not just talking about an intellectual property or a tax evasion issue: Illicit trade harms consumers, destabilizes communities, and poses a broader threat to peace and security.

Alvise Giustiniani, Vice President, Illicit Trade Prevention

→ You can learn more about our efforts in 2021 on [PMI.com](#)



REPORTING AND PERFORMANCE

About this report	228	Glossary of terms and acronyms	248
Performance in ESG ratings, rankings, and indices	229	Forward-looking and cautionary statements	252
Performance metrics	232	Notes	253
Independent assurance report	245		

About this report

We are pleased to share our 2021 Integrated Report, which follows our 2020 Integrated Report (published in May 2021) and constitutes our seventh consecutive annual disclosure incorporating ESG content. This report describes our company's progress in delivering on its purpose.

The report content is shaped by a formal [sustainability materiality assessment](#) conducted in 2021, which incorporates an assessment of our company's impacts on society and the planet, an evaluation of the potential impact of various ESG factors on our enterprise value, and the perspectives of diverse stakeholder groups. We have structured our ESG topics around two pillars: product impact and operational impact. Those topics pertaining to the social impacts of our products are considered most material. These and other material ESG topics form the basis of our strategy, which is organized into eight environmental and social priorities and nine related governance factors. This report provides information on context, relevance, management approach, targets, performance, and outlook for our strategic priorities. It is complemented by case studies and additional materials available on [PMI.com](#).

Aligning our disclosures with reporting standards and frameworks

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core Option. Our 2021 GRI Index is available on [PMI.com](#). We consider the principles and standards of the UN Global Compact (UNGC) when compiling our annual integrated report and map them against GRI indicators in our GRI Index. Our [SDG Index](#) describes how our work and ambitions align with the UN SDGs at the Target level.

We take into account guidance from the Value Reporting Foundation (VRF), including use of its SASB Standards, Integrated Thinking Principles, and Integrated Reporting Framework. Our [SASB Index](#) maps content within this report and other available disclosures aligned with the Tobacco Standard, as well as with aspects

Unless otherwise indicated, the data and information in this report cover our operations worldwide for the full calendar year 2021 or reflect the status as of December 31, 2021. Unless explicitly stated, the data and information in this report do not incorporate acquisitions made by PMI during 2021 of Fertin Pharma A/S, Vectura Group plc., and OtiTopic, Inc. Where not specified, data come from PMI financials, nonfinancials, or estimates.

PricewaterhouseCoopers SA (PwC) has provided independent assurance on select Business Transformation Metrics, available on [pages 35](#) and [232-233](#). For more details, see the Independent Assurance Report on [page 245](#). SGS has provided external verification of our environmental and health and safety data (including our 2021 GHG emissions data). The verification statements are available on [PMI.com](#).

This report was completed with oversight from PMI's Board of Directors and reviewed by its Executive Chairman, as well as by all members of our Sustainability Committee—composed of Company Management members, including our Chief Executive Officer, Chief Financial Officer, and Senior Vice President and General Counsel. Additional information about our sustainability work, including previous reports and policies, is available in the Sustainability Resources area of [PMI.com](#).

We welcome your feedback and suggestions. Please contact us at sustainability@pmi.com.

of the Agricultural Products, Hardware, and Medical Equipment and Supplies standards.

Finally, this report addresses some of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Our reporting to CDP covers most of the remainder of these recommendations, and we seek greater alignment each reporting year.

While we considered the World Economic Forum (WEF/IBC) Core ESG metrics during preparation of this report, we did not include a separate index this year to avoid overlap in disclosures and in anticipation of its consolidation within the International Sustainability Standards Board (ISSB) recently convened by the IFRS Foundation Trustees.

Performance in ESG ratings, rankings, and indices

At PMI, we understand the value of participating in ESG ratings: It helps us assess our sustainability performance, benchmark ourselves against our peers, and, most importantly, identify areas for improvement.

We prioritize our participation in ESG ratings that are most useful to us and our stakeholders, based on:

- The credibility of the methodology and our ability to interpret and use the results
- Recognition of the rating among the investor community, as well as participation by our competitors and peers

- Its value as a learning opportunity, including a sufficient feedback loop to allow us to improve over time
- Resources required, which should not undermine our company's focus on performance improvement
- The organization's openness to dialogue, allowing us to understand expectations and results, share knowledge, correct factual inaccuracies, and provide input on ratings enhancements.

	2021 score (and year-on-year trend)	
S&P Global Corporate Sustainability Assessment	83/100	Member of Dow Jones Sustainability Indices Powered by the S&P Global CSA
Sustainalytics	22.9	
MSCI	BBB	
CDP Climate, Forest, Water Security	AAA	CDP CLIMATE FOREST WATER SECURITY A LIST 2020
CDP Supplier Engagement	Leaderboard	CDP SUPPLIER ENGAGEMENT LEADER 2020
Bloomberg Gender-Equality Index	Index member	Bloomberg Gender Equality Index 2021
S&P ESG Evaluation	60/100	
Tobacco Transformation Index	2.36/5	
ISS-oekom	C	
State Street R-Factor	65	

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Investors and other financial stakeholders place an increasing value on reliable, robust, and timely measures of ESG performance. While ESG ratings can play an important role, their inherent limitations and the desire to take a more sophisticated approach on par with financial analysis means they are but one part of the input dataset for many institutional investors. Through this integrated report, and the ever-strengthening processes and initiatives that underpin it, we aim to provide a holistic and extensive view of our performance across the most material ESG issues for our business. This is well-demonstrated by our new Sustainability Index, which meaningfully aligns ESG performance with internal and external incentives.

James Bushnell, Investor Relations and Financial Communications

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Business transformation-linked financing framework

In 2021, PMI published its [Business Transformation-Linked Financing Framework](#), which integrates the company's smoke-free transformation into its financing strategy. The KPIs selected for the framework directly measure and respond to the focus of PMI's sustainability and corporate strategy and the company's most material sustainability topic: , which integrates the company's smoke-free transformation into its financing strategy. The KPIs selected for the framework directly measure and respond to the focus of PMI's sustainability and corporate strategy and the company's most material sustainability topic: Addressing the health impact of its products.

PMI's financing framework is aligned with the [five core components of the Sustainability-Linked Bond Principles](#) published by the International Capital Market Association (ICMA) in June 2020.

It also takes into account the [Sustainability Linked Loan Principles](#), published by the Loan Market Association (LMA) in May 2021.

The framework was validated by S&P Global Ratings, which provided a second-party opinion (SPO). The SPO recognized the chosen KPIs and related sustainability performance targets (SPTs) as material, measurable, ambitious, regularly reported, and externally verified—in line with both the ICMA and LMA principles.

A business transformation-linked financing instrument was issued in September 2021.

Other recognitions

WBCSD Reporting Matters

PMI's Integrated Report 2020 was included among the top ten reports globally according to the [2021 Reporting Matters](#) publication by the World Business Council for Sustainable Development (WBCSD).



DJSI Yearbook

PMI was included in S&P Global's [2022 Sustainability Yearbook](#), receiving two sustainability awards: Global Silver Class and Industry Mover.

Sustainability Award

Silver Class 2022

S&P Global

Sustainability Award

Industry Mover 2022

S&P Global

Global Top Employer

PMI has been certified by the Top Employers Institute as a Global Top Employer for the fifth year in a row.



Equal salary

PMI is globally EQUAL-SALARY certified. The certification verifies that organizations have sustainable policies and practices to ensure that they pay their male and female employees equally for equal work.



EQUAL-SALARY
GLOBALLY
CERTIFIED

Memberships and alliances



ALLIANCE FOR
WATER STEWARDSHIP



BCTI The Business
Commission to
Tackle Inequality



BUSINESS
FOR NATURE



TASK FORCE
ON CLIMATE-RELATED
FINANCIAL DISCLOSURES



Taskforce on Nature-related
Financial Disclosures



Performance metrics



PRODUCT IMPACT

Business Transformation Metrics

	2015 Baseline	2019	2020	2021	2025 Aspirations
R&D					
Adjusted R&D expenditure (in millions USD) ^{1*}	423	465	495	566	
Adjusted R&D expenditure ratio (smoke-free/total) ^{1*}	70%	98%	99%	99%	
Number of R&D positions (FTEs) ²	n/a	942	934	981	
Patents granted in IP5 jurisdictions relating to smoke-free products (cumulative, since 2015) ³	n/a	740	1,300	1,770	
Number of studies completed by PMI on smoke-free products (cumulative, since 2015):					
• Toxicological assessment	n/a	109	146	203	
• Clinical assessment	n/a	19	22	24	
Perception and behavior (premarket and post-market)	n/a	13 (9 + 4)	30 (15 + 15)	44 (25 + 19)	
Sourcing & Operations					
Supply chain direct spend expenditure ratio (smoke-free/total) ⁴	n/a	35%	33%	35%	
Cumulative investment behind smoke-free products (since 2008, in billions USD) ⁵	2.4	7.2	8.1	9.2	
Number of factories producing smoke-free products out of total number of factories ^{6*}	2 out of 48	8 out of 38	8 out of 39	8 out of 38	
Commercialization					
Year-on-year change in number of SKUs—combustible products ⁷	n/a	(6%)	(5%)	3%	
Year-on-year change in number of SKUs—smoke-free products ⁷	n/a	26%	38%	42%	
SKUs ratio (smoke-free/total)	3%	10%	14%	18%	
Number of markets where smoke-free products are available for sale ^{8*}	7	52	64	71	100 SI
Proportion of markets where smoke-free products are available that are low- and middle-income markets ^{9*}	33%	35%	41%	43%	>50% SI
Number of IQOS stores ¹⁰	n/a	199	259	274	
Number of retailers that sell PMI smoke-free product consumables (in thousands)	n/a	679	748	812	
Commercial (marketing) expenditure ratio (smoke-free/total)*	8%	71%	76%	73%	
Smoke-free product shipment volume (billion units)*	1	60	76	95	>250
Combustible product shipment volume (billion units)*	881	732	654	650	<550
Change in combustible product shipment volume vs. 2015 baseline ^{11*}	n/a	(17.0%)	(25.8%)	(26.3%)	~(40%)
Smoke-free product shipment ratio (smoke-free/total) ^{11*}	0.1%	7.6%	10.4%	12.8%	>30% SI

SI Indicators included in PMI Sustainability Index

Business Transformation Metrics continued

	2015 Baseline	2019	2020	2021	2025 Aspirations
Consumers					
Total number of users of PMI smoke-free products (in millions) ^{12*}	0.2	13.5	18.3	21.7	SI
Estimated number of users who have switched to PMI smoke-free products and stopped smoking (in millions) ^{12*}	0.1	9.6	13.0	15.3	>40
Revenues					
Adjusted net revenues ratio (smoke-free/total) ^{13*}	0.2%	18.7%	23.8%	29.1%	>50% SI
Number of markets where adjusted net revenues from smoke-free products exceed 10% of adjusted total net revenues ^{13*}	0	31	38	47	
Number of markets where adjusted net revenues from smoke-free products exceed 50% of adjusted total net revenues ^{13*}	0	4	6	10	
Annual net revenue from wellness and healthcare products (in billion USD)	n/a	n/a	n/a	0.1	≥1

* The 2021 metrics marked with an asterisk (*) are subject to PwC's Assurance Report (see page 245).

⁷ "SKUs" stands for stock-keeping units. References to the number of SKUs are based on the latest available data and categorization of our product portfolio into SKUs, therefore a minor restatement in previous years' data is reflected. The figures exclude China and the U.S. Note: As part of maintaining share in combustibles, remaining competitive on product range in line with consumer preferences best positions us to retain access to adult smokers and increase our capability to switch them to smoke-free products.

⁸ Data reflect status by the end of respective year. 2021 data exclude Belarus and the U.S.

⁹ Excluding PMI Duty Free. Data reflect status by the end of respective year. 2021 data exclude Belarus and the U.S. For definition of low- and middle-income markets, see glossary.

¹⁰ Includes flagship stores and small, large, and temporary boutiques.

¹¹ These indicators are calculated based on millions of units.

¹² These metrics are excluding PMI Duty Free and reflect the estimated number of legal age (minimum 18 years) users of PMI IQOS heat-not-burn product (see glossary). In 2021, we evolved our methodology to estimate the total number of users of PMI smoke-free products, in order to better reflect the number of users for which PMI HTU represented at least a portion of their daily tobacco consumption over the past seven days. 2020 data was restated accordingly. Unavailability of sufficiently granular data did not enable us to restate figures for years prior to 2020. We also fine-tuned our methodology to estimate the number of users who have switched to PMI smoke-free products and stopped smoking, in order to reflect the conversion rate of our total user base at year-end, and restated 2020 data accordingly.

¹³ Data reflect the status by the end of the respective year. 2021 adjusted net revenues exclude the impact related to the Saudi Arabia customs assessments. 2021 revenues from wellness and healthcare (USD 101 million) are included in both smoke-free and total adjusted net revenues. See glossary.

Responsible marketing and sales practices

	2019	2020	2021	Goals
Total number of people (PMI employees and third parties) who participated in at least one Marketing Codes-related training session ¹	n/a	n/a	70,011	
• Number of PMI employees	n/a	n/a	22,774	
• Number of third parties	n/a	n/a	47,237	
Number of violations of the Marketing Codes resulting in substantiated cases of misconduct	42	29	13	
Breakdown by type of disciplinary actions as a result of violations of the Marketing Codes:				
• Termination of employment	n/a	n/a	15%	
• Suspension	n/a	n/a	8%	
• Verbal warning or counseling	n/a	n/a	62%	
• Written warning	n/a	n/a	15%	
Proportion of shipment volume covered by markets with youth access prevention programs in place in indirect retail channels ²	n/a	94%	91%	>90% SI

¹ Indicator introduced in 2021, replacing the indicator "number of compliance training sessions conducted on PMI's Marketing Code," following the release of new Marketing Codes.

² Total shipment volume includes cigarettes, heated tobacco units, other tobacco products, and e-cigarettes. In 2021, we evolved our minimum requirements for effective youth access prevention (YAP) programs in indirect retail channels.



Reduce post-consumer waste

	2019	2020	2021	Goals
Cigarette butt littering	n/a	n/a	n/a	≥80% by 2025
Proportion of shipment volumes covered by markets with anti-littering program in place for combustible cigarettes ¹	31	n/a	53	
Number of affiliates participating in World Cleanup Day	31	47	46	
Number of affiliates with anti-littering strategy	54	33	53	
Number of anti-littering initiatives conducted	n/a	n/a	n/a	100% by 2025
Smoke-free devices and consumables	n/a	n/a	n/a	>1 million by 2025
Proportion of PMI smoke-free devices with eco-design certification ²	n/a	n/a	62	
Cumulative number of smoke-free electronic devices refreshed or repaired since 2021 (in thousands) ³	150	191	178	
Volume of shredded materials coming from dismantled devices in the CIRCLE hubs (in tons)	29%	40%	53%	70% by 2023, 80% by 2025
Effective recycling rate IQOS devices ⁴	39%	48%	63%	100% by 2025
Proportion of IQOS device sales volume covered by the CIRCLE program	74%	84%	86%	80% (ongoing)
Recycling rate of IQOS devices at the CIRCLE hubs (weighted average) ⁵	n/a	n/a	n/a	≥80 % by 2025
Proportion of shipment volume covered by markets with end of life take-back programs in place for smoke-free consumables ⁶	94%	94%	95%	100% by 2025
Packaging	89%	89%	90%	95% by 2025
Proportion of packaging material that is recyclable	n/a	n/a	427,597 (89.7% / 10.3%)	
Proportion of packaging material that is renewable	1%	5%	8%	15% by 2025

¹ In 2021 we defined the minimum criteria which must be met by each market to be considered as having an anti-littering program in place. We will begin reporting progress on this new indicator in 2022.

² Our aspiration is to have eco-design certifications for all smoke-free devices which are launched as of the end of 2025. Given the long-term nature of this aspiration, we have developed internal metrics based on key milestones that will allow us to track our progress in the interim years leading up to our 2025 aspiration.

³ For the definition of refreshed or repaired devices, see [glossary](#).

⁴ In 2021, the effective recycling rate is calculated as the actual recycling rate in Hungary and Japan, multiplied by the IMS coverage of these hubs plus the theoretical recycling rate in the newly established Russian hub, multiplied by the IMS coverage of the Russian market.

⁵ Recycling rate: percentage of the weight of each device that is recycled, weighted-average depending on device type and processing facility (includes 78% recycling, 8% incineration with energy recovery). 2021 data cover CIRCLE hubs in Hungary and Japan.

⁶ In 2021 we defined the minimum criteria which must be met by each market to be considered as having a take-back program in place. We will begin reporting progress on this new indicator in 2022.

⁷ Includes portfolio/volume mix and inventory movement. Includes shipping cases.



OPERATIONAL IMPACT

Foster an empowered and inclusive workplace

	2019	2020	2021	Goals
Fair working conditions	Number of PMI employees	73,542	70,849	68,547
	Number of PMI full-time equivalent (FTE) positions	71,795	70,560	67,291
	Proportion of employees covered by Collective Labor Agreements	63.3 %	62.1 %	61.1 %
	Total number of countries with Collective Labor Agreements	35	34	34
Talent attraction, retention, and employability	Employee overall turnover rate ¹	13.6%	9.7%	12.0%
	Women employee overall turnover rate ¹	14.4%	9.7%	9.4%
	Employee voluntary turnover rate ¹	5.1%	3.1%	4.7%
	Proportion of open positions filled in with internal candidates	n/a	21%	18%
	Number of newly hired employees	9,020	5,835	8,381
	Spend for learning per FTE (in USD) total	513	551	506
	Average hours of training spend per FTE	15	11	17
	Proportion of PMI employees who have access to structured lifelong learning offers ²	n/a	n/a	>70% by 2025
	Proportion of employees covered by performance review ^{1,3}	79%	93%	92%
	Employee Net Promoter Score ⁴	16	33	35

Employee health and safety	Lost time incident (LTI) rate per 200,000 hours worked—PMI employees, contracted employees, and contractors ⁵	0.14	0.08	0.05
	LTI rate per 200,000 hours worked—PMI employees and contracted employees	0.12	0.07	0.06
	LTI rate per 200,000 hours worked—contractors	0.23	0.12	0.05
	Integrated total recordable incidents rate (TRIR) per 200,000 hours worked—PMI employees, contracted employees, and contractors	0.22	0.12	0.09
	TRIR per 200,000 hours worked—PMI employees	0.20	0.11	0.09
	TRIR per 200,000 hours worked—contracted employees	0.17	0.06	0.07
	TRIR per 200,000 hours worked—contractors	0.32	0.16	0.10
	Number of fatalities—PMI employees, contracted employees, and contractors ⁶	1	2	1
	Number of fatalities—members of the public	10	5	2
	Occupational illness frequency rate (OIFR) per 200,000 hours worked—PMI and contracted employees	0.000	0.000	0.001
	Collision rate within PMI's fleet of vehicles per year (collisions per million km driven)	0.87	0.53	0.44
	Proportion of PMI fleet equipped with telematics ⁷	n/a	35%	47%
	Proportion of manufacturing facilities with ISO 45001 certification ⁸	98%	100%	100% (ongoing)

Foster an empowered and inclusive workplace continued

	2019	2020	2021	Goals
Proportion of women in PMI's workforce ¹	41.7%	41.8 %	42.2%	
Proportion of management positions held by women ^{1,9,10}	36.6%	37.7%	39.7%	≥40% by 2022
Proportion of women employees at different managerial levels: ^{1,9,10}				
• Managers	38.0%	39.3%	41.4%	
• Directors	31.4%	31.0%	32.0%	
• Senior leaders	17.6%	20.2%	25.3%	
Proportion of women in senior roles ^{1,9,10}	29.5%	29.6%	31.1%	35% by 2025, 32% by 2023 ^(S)
Proportion of new hires in management positions that are women ^{1,9,10}	40.7%	38.7%	44.7%	
Proportion of new hires at junior levels that are women ^{1,9}	41.0%	40.3%	40.7%	
Proportion of new hires that are women ^{1,9}	41.0%	40.1%	41.3%	
Proportion of promotions to management positions that are women ^{1,9}	40.7%	45.0%	47.6%	
Proportion of women on PMI's Company Management ^{10,11}	8.0%	16.0%	16.7%	
Proportion of women on PMI's Board of Directors ¹²	25.0%	15.0%	23.1%	
Mean gender pay gap ¹³	34.3%	33.1%	33.5%	
Proportion of employees at different age groups:				
• Below 25	5.0%	4.0%	4.2%	
• Between 25 and 34	29.0%	29.0%	29.0%	
• Between 35 and 54	62.0%	62.0%	62.7%	
• Above 55	4.0%	4.0%	4.1%	
Proportion of women in STEM-related positions ¹⁴	36.7%	36.0%	37.4%	
Proportion of women in management positions in revenue-generating functions ¹⁵	32.3%	33.4%	35.7%	
Number of nationalities among PMI's employees	128	131	133	
Number of markets with access to local LGBTQ+ networks (local chapters of STRIPES employee resource group)	27	28	29	
Employee self-assessment psychological well-being measure ¹⁶	n/a	57%	61%	

Note: The 2021 indicators in the above table are calculated based on 68,547 PMI employees, which excludes PMI 2021 acquisitions in wellness and healthcare. Incorporating 2021 acquisitions of Fertin Pharma A/S, Vectura Group plc., and OtiTopic Inc. PMI employed approximately 69,600 people worldwide at year-end.

Select 2021 health and safety metrics are subject to external verification by SGS (see the External Verification Statement [here](#)).

¹ In 2021 we updated our methodology to expand scope and cover employees on long-term leave (over 30 calendar days); we have restated historical data accordingly.

² We will begin reporting progress on this new indicator in 2022.

³ 2021 data based on a total of 55,276 employees maintained in PMI's central HR system.

⁴ We measure the engagement of our workforce using the employee Net Promoter Score (eNPS), following a methodology similar to that which we use to measure consumer engagement. The score can range from -100 to +100.

⁵ For definition of contracted employee and contractor, see [glossary](#).

⁶ PMI employees and contracted employees: 1 fatality in 2021; contractors: zero fatalities in 2021.

⁷ Scope covers PMI's working tool cars (representing 75% of PMI's total fleet).

⁸ Scope covers manufacturing facilities producing more than 3 billion cigarette equivalents annually.

⁹ Our gender diversity data cover around 95% of PMI's total workforce.

¹⁰ For definitions of managers, directors, and senior leaders see [glossary](#).

¹¹ Data as of March 11, 2022 (24 Company Management members, of whom 4 were women). See [PMI Annual Report 2021](#) for further details.

¹² Data as of March 25, 2022 (13 members of PMI's Board of Directors, of whom 3 were women). See [PMI 2022 Proxy Statement](#) for further details.

¹³ The mean gender pay gap is calculated as the percentage difference between the sum of annual base salary, bonus, and stock options.

¹⁴ This figure is an estimate based on the total headcount within functions where the primary skills required for employees in their daily responsibilities related to science, technology, engineering, or mathematics.

¹⁵ Employees holding management roles in revenue-generating functions (i.e., functions responsible for core business objectives or profit and loss).

¹⁶ The indicator represents the percentage of employees who responded "good" or "very good" to the question "How would you rate your current psychological or emotional well-being at present?" in our regular employee listening survey. The indicator was updated based on new information available, so a slight shift in previous years' data is reflected.

PMI's workforce at year-end 2021

	2021
Number of employees by employment contract (permanent and temporary), by gender	
Women employed on a permanent contract	27,759
Women employed on a temporary contract	1,183
Men employed on a permanent contract	37,819
Men employed on a temporary contract	1,786
Number of employees by employment contract (permanent and temporary), by Region	
Employees on a permanent contract in European Union region	18,295
Employees on a temporary contract in European Union region	1,622
Employees on a permanent contract in Middle East & Africa region, including PMI Duty Free	3,009
Employees on a temporary contract in Middle East & Africa region, including PMI Duty Free	123
Employees on a permanent contract in Eastern Europe region	6,423
Employees on a temporary contract in Eastern Europe region	161
Employees on a permanent contract in South & Southeast Asia region	26,866
Employees on a temporary contract in South & Southeast Asia region	454
Employees on a permanent contract in East Asia & Australia region	3,948
Employees on a temporary contract in East Asia & Australia region	120
Employees on a permanent contract in Americas (including U.S.)	7,037
Employees on a permanent contract in Americas (including U.S.)	489
Number of employees by employment type (full-time and part-time), by gender	
Women employed on a full-time contract	27,822
Women employed on a part-time contract	517
Men employed on a full-time contract	38,994
Men employed on a part-time contract	211

Note: All data as of December 31, 2021. Presentation of information and data aligns with guidance of GRI standard 102-8 (2016).



Improve the quality of life of people in our supply chain

	2019	2020	2021	Goals
Agricultural Labor Practices (ALP)				
Proportion of contracted tobacco farms for which labor practices have been systematically monitored (adherence to PMI's ALP)	92%	93%	94%	>90% (ongoing)
Total number of prompt actions recorded by field technicians	14,440	14,751	9,918	
• Proportion due to safe working environment	73%	73%	76%	
• Proportion due to hazardous work performed by children	19%	16%	11%	
• Proportion due to income and working hours	8%	11%	13%	
• Proportion due to other ALP Principles	<1%	<1%	<1%	
Total number of ALP prompt actions resolved	8,137	10,772	8,540	
Number of terminated contracts due to ALP violations (per crop season)	641	1,794	875	
Income levels				
Proportion of contracted farmers supplying tobacco to PMI who make a living income ¹	n/a	48%	67%	100% by 2025
Proportion of contracted farmers in tobacco supply chain covered by monitoring on wages	93%	93%	91%	
Proportion of farmers paying their workers at least the minimum legal wage or agricultural benchmark	n/a	65%	95%	100% by 2022
Number of ALP prompt actions recorded by field technicians relating to non-payment of minimum wage to farmworkers	1,158	1,541	1,154	
Child labor prevention				
Prevalence of child labor in PMI's tobacco supply chain ²	n/a	3.5%	1.8%	Zero by 2025
Number of ALP prompt actions recorded by field technicians relating to child labor ³	2,712	2,352	1,175	
• Hazardous tasks ⁴	2,712	2,285	1,121	
• Under 13 working ⁵	n/a	64	38	
• Under 15 hired	n/a	3	16	
Proportion of ALP prompt actions recorded by field technicians relating to child labor that were resolved	88%	75%	99%	
Well-being				
Proportion of contracted farmers who have access to water ⁶	n/a	n/a	87%	100% by 2025
Proportion of farmers and farmworkers having access to personal protective equipment	99%	100%	100%	100% (ongoing)
Proportion of tobacco farmworkers provided with safe and adequate accommodation ⁷	80%	100%	100%	100% (ongoing)

Note: Our 2021 farm-level ALP monitoring data cover 20 out of the 21 countries from which we sourced in 2021; data exclude Switzerland, where we sourced from approximately 120 tobacco farmers in 2021. Read more [here](#).

¹ As we progress with the independent analysis, the percentage of farmers achieving a living income is currently based on a combination of external living income benchmarks, farmer income studies, and PMI internal data.

² Includes all prompt actions raised and self-declared nonconformities reported for all contracted farms monitored for child labor. Read more [here](#).

³ The number of children estimated to be involved in these prompt actions is 1,609.

⁴ Includes children of any age found to be involved in hazardous work.

⁵ Includes light work only.

⁶ Estimated data based on surveys that indicated that the farmer has an improved source within 1 km. Data exclude China.

⁷ Scope is limited to farmers that provide accommodation to workers (approximately 8% of the total farmer base in 2021).

Preserve nature

	Scope	2019	2020	2021	Goals
Forest					
Proportion of tobacco purchased at no risk of gross deforestation of primary and protected forests ¹		97%	100%	100%	100% (ongoing)
Proportion of tobacco purchased at no risk of net deforestation of managed natural forest and no conversion of natural ecosystems ¹		n/a	n/a	37%	100% by 2025
Total hectares of forest grown	PMI tobacco supply chain	n/a	n/a	355	
• Due to restoration of at-risk forest		n/a	n/a	165	
• Contribution to forest positive		n/a	n/a	190	
Proportion of flue-cured tobacco purchased that is cured with renewable fuel sources (self-sufficient firewood and biomass adoption)		51% (36% + 15%)	67% (45% + 22%)	75% (44% + 31%)	>70% (ongoing)
Approximate total number of curing barns upgraded since 2014 (cumulative)		80,800	82,519	93,700	
CDP Forest rating	PMI value chain	A-	A	A	A
Cubic meters of water optimized in our tobacco-growing areas (cumulative since 2019)		717	8,968	437,915	≥10 million cubic meters by 2030
Water					
Proportion of tobacco-growing areas which are covered by local water risk assessments (cumulative, since 2018)	PMI tobacco supply chain	36%	57%	66%	
Quantity of blue water used per ton of tobacco produced ²		330	307	339	
Total amount of water used ('000 m ³)		138,200	115,009	133,674	
Total amount of water consumed (withdrawn minus discharged) ('000 m ³)		1,883	1,619	1,481	
Total amount of water withdrawn ('000 m ³)	PMI factories	4,008	3,375	3,120	
Water ratio (water withdrawn in m ³ per million units of cigarettes sold) ³		3.9	3.5	2.6	<3.1 (ongoing)
CDP Water rating	PMI value chain	A	A	A	A
Biodiversity					
Proportion of tobacco purchased without detection of residues attributable to the use of highly hazardous pesticides (HHPs), as defined by FAO and WHO guidelines in 2016 ⁴	PMI tobacco supply chain	97%	100%	n/a	100% (ongoing)
Proportion of tobacco purchased without detection of residues attributable to the use of WHO TOX1 group of crop protection agents ⁴		100%	100%	n/a	100% (ongoing)
Waste					
Total amount of waste generated (in metric tons)	PMI operations	131,104	119,750	114,043	
• Recycled		84.0%	85.5%	87.3%	85% (ongoing)
• Incinerated with energy recovery		11.6%	11.4%	11.4%	
• Incinerated without energy recovery		<1%	0.3%	0.3%	
• Disposed to landfill ⁵		4.1%	2.8%	1.1%	<1%
Amount of hazardous waste generated		1,486	1,266	1,057	
• Incinerated with energy recovery		49.0%	42.6%	57.3%	
• Recycled		33.0%	37.6%	20.9%	
• Incinerated without energy recovery		10.0%	12.7%	13.5%	
• Disposed to landfill		8.0%	7.1%	8.2%	

^{SI} Indicators included in PMI Sustainability Index

Preserve nature continued

	Scope	2019	2020	2021	Goals
Manufacturing facilities certified to ISO 14001 ⁶		98	100	100	100
Number of environmental fines (and approximate amount in USD) ⁷	PMI factories	1 (25,000)	1 (32,000)	2 (48,000)	

Note: Select 2021 waste- and water-related metrics for our manufacturing sites are subject to external verification by SGS (see the External Verification Statement [here](#)).

¹ For definitions, please see PMI's [Zero Deforestation Manifesto](#).

² Blue water refers to water used for irrigation, excluding rainfall.

³ Water intensity is measured in cubic meters per million cigarettes produced equivalent. In 2021, we updated our methodology to account for the conversion factor of heated tobacco units to conventional cigarettes of 5.1 and have restated historical data accordingly.

⁴ The 2021 crop season data were not available at the time of the publication of PMI's Integrated Report 2021.

⁵ Disposal to landfill includes sanitary waste, canteen waste, and waste mandated by authorities to be disposed of in landfill.

⁶ Scope: Manufacturing facilities producing more than three billion cigarette equivalents annually.

⁷ Fines above USD 10,000 (or equivalent in converted currency). 2021 figure is a provision for two administrative offenses related to failure to comply with water resource use permit and availability of financial guarantee in Portugal. In both cases, PMI has submitted its opposition.

Tackle climate change

	2019	2020	2021	Goals
Total energy consumption in PMI factories, offices, and fleet (gigajoules)	9,456,576	7,909,157	7,721,166	
Proportion of total energy consumed that is from renewable sources	27%	29%	33%	
Energy intensity (gigajoules per million cigarettes equivalent) ¹	11.95	10.83	10.37	
Fuel consumption from non-renewable sources (gigajoules)	5,819,072	4,733,193	4,541,721	
Fuel consumption from renewable sources (gigajoules)	128,967	91,680	123,033	
Total electricity consumed (MWh) ²	959,723	832,292	865,166	
Total electricity consumed that is from renewable sources (MWh)	623,940	621,620	674,903	
Absolute CO ₂ e scope 1 (metric tons) ³	397,210	322,633	308,822	
Absolute CO ₂ e scope 2 (metric tons) ³	158,672	90,366	64,217	
Absolute CO ₂ e scope 1+2 (metric tons) ³	555,882	412,999	373,040	
• Absolute reduction versus 2019 baseline	n/a	26%	33%	50% by 2030 (SBT)
Carbon offsetting certificates (metric tons) ⁴	1,242	3,297	16,128	
Net CO ₂ e scope 1+2 (metric tons) ³	554,640	409,703	356,911	
CO ₂ e scope 1+2 intensity (kg per million cigarettes equivalent) ¹	702	556	501	
Scope 1+2—Manufacturing				
Absolute CO ₂ e scope 1+2 (metric tons) from manufacturing	394,447	305,381	267,783	
Proportion of electricity used and purchased that is from renewable sources	72%	78%	81%	100% by 2025
Number of carbon-neutral factories	1	2	5	All by 2025
Scope 1—Fleet				
Absolute CO ₂ e scope 1 from fleet (metric tons)	111,400	79,457	78,018	
• Absolute reduction versus 2019 baseline	n/a	29%	30%	
CO ₂ e emissions from fleet (kg CO ₂ e per km driven)	222	216	200	
Proportion of hybrid or electrical vehicles in our fleet	n/a	5%	10%	
Absolute CO ₂ e scope 3 (in thousands of metric tons)	4,494	3,793	3,748	
• Absolute reduction versus 2019 baseline	n/a	16%	17%	25% by 2025
CO ₂ e scope 3 biogenic emissions (in thousands of metric tons)	2,471	2,185	2,271	50% by 2030 (SBT)
Scope 3 – Tobacco supply chain				
Absolute CO ₂ e scope 3 (in thousands of metric tons) from tobacco supply chain	1,264	909	804	
• Absolute reduction versus 2019 baseline	n/a	28%	36%	50% by 2030
CO ₂ e intensity reduction in tobacco curing versus 2019 baseline	n/a	44%	64%	75% by 2025
Proportion of Virginia tobacco purchased cured with coal	16%	11%	3%	
Absolute CO ₂ e scope 1+2+3 (in thousands of metric tons)	5,050	4,206	4,122	Net zero by 2040
• Absolute reduction versus 2019 baseline	n/a	17%	18%	
CO ₂ e scope 1+2+3 intensity (kg per million cigarettes equivalent) ³	6,381	5,760	5,534	
• Reduction versus 2019 baseline	n/a	10%	13%	
CDP Climate Change rating	A	A	A	A

Note: Our inventory of GHG emissions (scope 1, 2, and 3) in 2021 is subject to external verification by SGS (see the External Verification Statement for scope 1+2 [here](#) and for scope 3 [here](#)).

¹ Intensity is measured in CO₂e per million shipped cigarette equivalent.

² Excludes electricity consumption from fleet.

³ Emissions from PMI-operated IQOS stores are excluded from scope 1+2 emissions, as de minimis.

⁴ 2021 figure includes carbon offsetting certificates purchased in our factories in Czech Republic, Lithuania, Mexico, Portugal, Switzerland, and our Operations Center in Switzerland.

⁵ For further details on Scope 3 calculation please see [PMI Value Chain Methodology](#). In 2021, we reviewed our carbon footprint model, taking into account more primary data from suppliers and updating our methodology, leading to more accurate figures for our scope 3 emissions. We have restated our 2019 and 2020 data according to the new model. Other figures that include scope 3 emissions have also been restated.

(SI) Indicators included in [PMI Sustainability Index](#)

FUNDAMENTALS

Business integrity

	2019	2020	2021
Proportion of current employees who participated in training sessions pertaining to PMI's Guidebook for Success ¹	n/a	n/a	71.3%
Total number of compliance training sessions completed by employees and third parties	253,763	198,170	261,890
• Employees	222,533	174,755	150,270
• Third parties	31,230	23,415	111,620
Total number of reports received involving compliance allegations and other concerns	980	762	929
Total number of cases closed	978	767	891
• Involving compliance allegations (unsubstantiated cases/substantiated cases)	653 (284/369)	431 (198/233)	508 (272/236)
• Not involving compliance allegations	325	336	383

Note: Training and cases are updated based on new information available, so a slight shift in previous years' data is reflected.

1 In 2021, we adjusted our methodology to exclude employees who are no longer employed by PMI as of December 31, 2021. As the basis for this year's calculation is different, it is not comparable to last year's reported number

Managing our supply chain sustainably

	2019	2020	2021	Goals
Total				
Total number of suppliers ¹	>33,200	>28,000	>29,000	
Total supply chain spend (in billions USD) ²	11.4	10.1	11.1	
Proportion of critical suppliers from whom PMI sources sustainably ³	n/a	67%	83%	100% by 2025
Non-tobacco supply chain				
Total procurement spend (in billions USD) ⁴	9.9	8.9	9.8	
Number of critical suppliers ⁵	95	154	162	
Critical suppliers, expressed as a proportion of total procurement spend	35%	35%	29%	
Number of critical suppliers assessed in EcoVadis or Responsible Business Alliance (RBA) ⁶	n/a	n/a	104	
Number of critical suppliers identified as having significant actual or potential negative social impacts ⁷	n/a	n/a	15	
Number of critical suppliers identified as having significant actual or potential negative environmental impacts ⁷	n/a	n/a	16	
Direct Materials				
Number of critical suppliers of direct materials assessed with EcoVadis	n/a	n/a	87	
Proportion of critical spend on direct materials assessed with EcoVadis	n/a	n/a	90%	
Average total EcoVadis score for critical suppliers of direct materials ⁸	n/a	n/a	56.5	
• Average score: Environment	n/a	n/a	60.5	
• Average score: Ethics	n/a	n/a	54.2	
• Average score: Social	n/a	n/a	55.8	
• Average score: Sustainable procurement	n/a	n/a	50.8	
Electronics				
Number of critical electronics suppliers assessed with RBA ⁹	n/a	n/a	17	
Number of site level RBA audits completed ¹⁰	n/a	n/a	31	
• Average RBA score achieved by electronics suppliers during site level audits	n/a	n/a	160	
• Percentage of electronic supply chain spend covered by these audits	n/a	n/a	69%	
Number of tier 2 electronic suppliers completing supplier-level self-assessment in RBA	n/a	n/a	21	
• Of tier 2 electronics suppliers assessed at supplier level, the number of site level self-assessments completed	n/a	n/a	43	
Tobacco supply chain				
Number of tobacco farmers contracted by PMI and PMI tobacco suppliers	335,000	285,898	253,813	
Proportion of tobacco purchased through direct contracts by PMI and PMI tobacco suppliers	96%	99%	98%	>90% (ongoing)
Number of third-party tobacco suppliers with whom PMI has a direct contractual relationship ¹¹	13	14	16	
Number of PMI leaf operations that contract tobacco farmers directly	8	6	5	
Number of countries where PMI sources tobacco from	24	23	21	
Number of field technicians providing support to contracted farmers and monitoring the implementation of PMI's Good Agricultural Practices (GAP) and Agricultural Labor Practices (ALP)	2,875	2,675	2,530	

1 Suppliers refer to tier 1 suppliers (parent companies).

2 Total supply chain spend includes procurement spend and tobacco leaf sourcing spend.

3 Indicator introduced in 2020. As of 2021, following the transition of our due diligence program, sustainable sourcing is determined based on a minimum threshold score of 45 out of 100 in EcoVadis (direct materials) or 125 out of 200 in RBA (electronics). All tobacco purchased by contracted farmers thereby covered by PMI's integrated production system, is considered sustainable.

4 Procurement spend excludes tobacco leaf sourcing.

5 Suppliers' criticality is evaluated considering spend segmentation and nature of component, as well as supply flexibility (single-source/not easily substitutable) as relevant. 2021 figure includes tier 1 suppliers of direct materials and electronics, tier 2 directly managed electronic suppliers, and tobacco leaf suppliers.

6 In 2021, we transitioned our supply chain due diligence assessments to the EcoVadis and RBA platforms. This figure represents the number of completed assessments on these platforms to date. In 2022, we will work to expand the scope of the assessments to additional critical suppliers.

7 Based on a score below 45 on the social or environmental theme of EcoVadis assessment, or the results of on-site audit from RBA. Comparable historic data not available due to transition of due diligence platforms in 2021.

8 EcoVadis score ranges from 0 to 100, with a minimum threshold score of 45 demonstrating satisfactory sustainability performance.

9 This figure includes 17 out of 23 of our electronic critical suppliers. In 2022 we will work to expand the scope of the assessments to additional critical suppliers.

10 Due to COVID-19 restrictions, in 2021 it was not possible to complete on-site audits at each of the 42 sites.

11 Data refer to parent companies.



Respect for human rights

	2019	2020	2021	Goals 10 highest-risk countries by 2025
Cumulative number of human rights impact assessments conducted since 2018, with findings addressed ¹	2	4	5	SI

¹ Our assessment prioritize countries which are assessed as highest risks from a human rights standpoint. They are determined based on key parameters such as PMI's footprint and the country's human rights risk profile, as determined by internationally recognized organizations.

Community support

	2019	2020	2021
Total number of social contributions supported by PMI	170	702	356
• Charitable donations	145	681	317
• Community investments	25	21	39
Number of partner organizations supported by PMI's social contributions	147	600	293
Number of countries where projects supported by PMI's social contributions were implemented	43	78	54
Value of cash contributions (in millions USD)	17.0	47.8	32.9
• Charitable donations	14.8	46.0	29.2
• Community investments	2.2	1.8	3.7
Approximate value of in-kind donations (in thousands USD)	205	12,190	2,150
Approximate total number of volunteer hours by PMI employees	16,700	15,272	12,673

¹ Our [Social Contributions Policy](#) and [list of 2021 social contributions](#) are available on PMI.com.

Illicit trade prevention

	2019	2020	2021	Goals
Coverage for tracking and tracing—master case level ¹	100%	100%	100%	100%
Tracking and tracing – proportion of packs sold with unique code applied ²	100%	100%	100%	100%
Additional Framework Cooperation Agreements signed with law enforcement agencies/governments in a given year—number of countries	2	11	9	
Number of law enforcement officers trained on how to authenticate PMI products ³	6,617	4,981	16,943	
Number of countries with law enforcement agencies trained on how to authenticate PMI products	23	22	17	
PMI IMPACT grants allocated in USD million ⁴	n/a	48	48	100

Note: Data cover PMI combustible tobacco products and smoke-free product consumables and devices.

¹ Full coverage equates to 95% tracking and tracing in our supply chain (excluding kretek business). 5% of master cases are not covered; these are destined for countries that are not identified as a source of potential diversion or where PMI sells to a single customer in the country.

² Excludes kretek business. While our internal rules mandate a unique code on every pack (hence 100% mentioned), some exceptions remain, which are managed and reviewed with the impacted markets on an annual basis.

³ The number of training sessions delivered each year depends on specific needs and requests raised locally by law enforcement agencies. The significant increase in 2021 was driven by larger numbers of participants taking part in online training sessions.

⁴ PMI pledged USD 100 million to PMI IMPACT. Goals related to PMI IMPACT are stated for the period 2016–2025.

Responsible and transparent R&D

	2019	2020	2021
Cumulative number of scientific publications by PMI since 2008	365	418	452
Cumulative number of studies published on INTERVALS platform since 2018	38	63	87
Cumulative number of protocols published on INTERVALS platform since 2018	103	122	132
Cumulative number of data sets published on INTERVALS platform since 2018	354	556	676

Note: As of 2021, we no longer report on indicators related to sbv IMPROVER which was an initiative executed by PMI between 2011 and 2020, with the scope of verifying methods and concepts in systems biology used at PMI R&D. More information can be found in sbv IMPROVER ([intervals.science](#)).

SI Indicators included in [PMI Sustainability Index](#)

Independent practitioner's limited assurance report

on Business Transformation Metrics Reporting 2021 to the Board of Directors of Philip Morris International Inc. Lausanne

We have been engaged by Management to perform assurance procedures to provide limited assurance on the specified Key Performance Indicators in the Business Transformation Metrics Reporting 2021 of Philip Morris International Inc. and subsidiaries ('PMI') for the period from January 1, 2021 to December 31, 2021.

The specified Key Performance Indicators ("KPI") forming part of the Business Transformation Metrics of PMI for the financial year ended December 31, 2021 are included in the Integrated Report 2021 and comprises the following in our scope:

- a. The following Business Transformation Metrics as disclosed on pages 35 and 232 of PMI's Integrated Report for the year ended December 31, 2021, respectively.

- Adjusted R&D expenditure (in millions USD)
- Adjusted R&D expenditure ratio (smoke-free/total)
- Number of factories producing smoke-free products out of total number of factories
- Number of markets where smoke-free products are available for sale
- Proportion of markets where smoke-free products are available that are low- and middle-income markets
- Commercial (marketing) expenditure ratio (smoke-free/total)
- Smoke-free product shipment volume (billion units)
- Combustible product shipment volume (billion units)
- Change in combustible product shipment volume vs 2015 baseline
- Smoke-free product shipment ratio (smoke-free/total)
- Total numbers of users of PMI smoke-free products (in millions)

- Estimated number of users who have switched to PMI smoke-free products and stopped smoking

- Adjusted net revenues ratio (smoke-free/total)

- Number of markets where adjusted net revenues from smoke-free products exceed 10% of adjusted total net revenues

- Number of markets where adjusted net revenues from smoke-free products exceed 50% of adjusted total net revenues

- b. The application of the PMI Business Transformation Framework for the preparation of the specified Key Performance Indicators in Business Transformation Metrics Report published on pages 35, 232 and 248 to 251 (Glossary).

The Business Transformation Metrics Reporting 2021 was prepared by Management of PMI based on the Business Transformation-Linked Financing Framework (or "Business Transformation Framework" in short) and made available under <https://www.pmi.com/investor-relations/overview/business-transformation-linked-financing-framework>¹). Further, PMI defines the calculation of the specified KPIs (together the "suitable Criteria") in the footnotes on pages 35 and 232 as well as in the Glossary (page 248 to 251) in the Business Transformation Metrics Reporting.

¹ The maintenance and integrity of PMI's website and its content are the responsibility of the Management; the work carried out by the assurance provider does not involve consideration of the maintenance and integrity of the PMI's website, accordingly, the assurance providers accept no responsibility for any changes that may have occurred to the reported Business Transformation Metrics Reporting 2021 since they were initially presented on the website.

Independent practitioner's limited assurance report continued

Inherent limitations

The accuracy and completeness of the Business Transformation Metrics Reporting 2021 are subject to inherent limitations given their nature and methods for determining, calculating and estimating such data. In addition, some KPIs are derived from different frameworks to form the Business Transformation Metrics, thus the quantification of some selfdefined KPIs is subject to inherent uncertainty because of incomplete scientific definition or knowledge used to determine factors related to such KPIs and the values needed to combine. Our assurance report will therefore have to be read in connection with the Business Transformation-Linked Financing Framework prepared by PMI, its definitions and procedures in the document "Business Transformation Framework" and the footnotes on pages 35 and 232 and glossary (page 248 to 251) in the Business Transformation Metrics Reporting.

Managements' responsibility

Management is responsible for preparing the Business Transformation Metrics Reporting 2021 in accordance with suitable Criteria. This responsibility includes the design, implementation and maintenance of the internal control system related to the preparation of the Business Transformation Metrics Reporting 2021 that are free from material misstatement, whether due to fraud or error.

Independence and quality control

We are independent of PMI in accordance with the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA Code). We have fulfilled our other ethical responsibilities in accordance with the IESBA Code, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

PricewaterhouseCoopers SA applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Practitioner's responsibility

Our responsibility is to perform a limited assurance engagement and to express a conclusion on the specified Key Performance Indicators in the Business Transformation Metrics Reporting 2021. We conducted our engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised) 'Assurance engagements other than audits or reviews of historical financial information'. Those standards require that we plan and perform our procedures to obtain limited assurance whether anything has come to our attention that causes us to believe that the Business Transformation Metrics Reporting 2021 are not free from material misstatement.

Based on risk and materiality considerations, we performed our procedures to obtain sufficient and appropriate assurance evidence. The procedures selected depend on the assurance practitioner's judgement. A limited assurance engagement under ISAE 3000 (Revised) is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks. Consequently, the nature, timing and extent of procedures for gathering sufficient appropriate evidence are deliberately limited relative to a reasonable assurance engagement and therefore less assurance is obtained with a limited assurance engagement than for a reasonable assurance engagement.

We performed the following procedures, among others:

- Interviewing PMI representatives responsible for the internal reporting and data collection.
- Test samples from PMI operations concerning the completeness, accuracy, consistency and classification.
- Inspecting relevant documentation on a sample basis, including PMI policies, management reporting structures and documentation.
- Reviewing and assessing the management reporting processes for Business Transformation Metrics data and consolidation and their related controls.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Conclusion

Based on the work we performed, nothing has come to our attention that causes us to believe that the specified Key Performance Indicators on the pages 35 and 232, respectively, (the metrics with an asterisk (*)) in the Business Transformation Metrics Reporting 2021 of PMI for the period from January 1, 2021 to December 31, 2021 are not, in all material respects, in accordance with the Business Transformation Framework and the footnotes on pages 35 and 232 as well as in the Glossary (page 248 to 251).

Intended users and purpose of the report

This report is prepared for, and only for, the Board of Directors of Philip Morris International Inc. and solely for the purpose of reporting to them on the specified Key Performance Indicators tables in Business Transformation Metrics Reporting 2021 and no other purpose. We do not, in giving our conclusion, accept or assume responsibility (legal or otherwise) or accept liability for, or in connection with, any other purpose for which our report including the conclusion may be used, or to any other person to whom our report is shown or into whose hands it may come, and no other persons shall be entitled to rely on our conclusion.

We permit the disclosure of our report, in full only and in combination with the suitable Criteria, to enable Management to demonstrate that they have discharged their governance responsibilities by commissioning an independent assurance report over the specified Key Performance Indicators tables in Business Transformation Metrics, without assuming or accepting any responsibility or liability to any third parties on our part. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Management of Philip Morris International Inc. for our work or this report.

PricewaterhouseCoopers SA

Chad Mueller Reto E. Huber

Lausanne, Switzerland
May 12, 2022

Glossary of terms and acronyms

3TGs – Tin, tantalum, tungsten, and gold

Aerosol – Gaseous suspension of fine solid particles and/or liquid droplets

ALP – Agricultural Labor Practices

AWS – Alliance for Water Stewardship

CA – Cellulose acetate

Caregiver – A person who has responsibility for the care of a new-born child or newly adopted child including the child's biological parent, the child's adoptive parent, a person having legal parental responsibility for the child such as the child's guardian, a stepparent, or a child's parent through surrogacy

Primary caregiver – The caregiver who has the primary responsibility for the care of the new-born or newly adopted child following the child's arrival

Secondary caregiver – A caregiver who is not the primary caregiver

Combustible tobacco product, or combusted tobacco product

– A manufactured consumable product that combusts tobacco and/or generates smoke inhaled directly by the user when it is used as intended. Combustible tobacco products include, for example, cigarettes, cigarillos, cigars, "roll your own," and pipe tobacco

Combustible products – The term we use to refer to cigarettes and OTP, combined

Combustion – The process of burning a substance in oxygen, producing heat and often light

Company Management – The term we use to refer to the senior management of the company, as presented on our www.PMI.com site (also referred to as "our leadership team" or "senior management team")

Contracted employee – We define a contracted employee as an employee who is under the direct supervision of PMI employees but employed by a temporary employment agency

Contracted farmers – Tobacco farmers supplying to PMI and contracted either directly by PMI (through the company's leaf operations) or through third-party leaf suppliers

Contractor – We define a contractor as a person employed or working on behalf of a third-party company contracted by PMI, who remains under the direct supervision of his or her employer rather than PMI and is often involved in project-specific or outsourcing arrangements

CPA – Crop protective agent

Downstream supply chain – Those stages in the supply chain in which materials (mostly in the form of finished products) flow away from the organization to the customers/consumers.

Directors – The term we use to refer to employees in salary grade 14 to 16

E&C – Ethics & Compliance

E-liquids – A liquid solution that is used in/with e-cigarettes. E-liquids contain different levels of nicotine in a propylene glycol and/or vegetable glycerin-based solution with various flavors.

E-vapor product – Electrical product that generates an aerosol by heating a nicotine or non-nicotine containing liquid, such as electronic cigarettes (or "e-cigarettes")

Employee resource groups, or ERGs – Employee-led groups that focus on particular dimensions of diversity and are intended to provide a platform for building a sense of belonging and sparking conversations.

EPR – Extended Producer Responsibility

ESG – Environmental, social, and governance

FAO – Food and Agriculture Organization of the United Nations

FCTC – WHO Framework Convention on Tobacco Control

FDA – U.S. Food and Drug Administration

GAP – Good Agricultural Practices

Gender pay gap – Calculated as the percentage difference between the sum of annual base salary, bonus, and stock options.

GHG – Greenhouse gas

GPP – Global Privacy Program

Heated tobacco product, or HTP – A manufactured tobacco product that delivers a nicotine-containing vapor (aerosol), without combustion of the tobacco mixture

Heated tobacco units, or HTUs – The term we use to refer to heated tobacco consumables, which for PMI include the company's *HEETS*, *HEETS Creations*, *HEETS Dimensions*, *HEETS Marlboro* and *HEETS FROM MARLBORO* (defined collectively as *HEETS*), *Marlboro Dimensions*, *Marlboro HeatSticks*, *Parliament HeatSticks* and *TEREA*, as well as the KT&G-licensed brand, *Fiit* and *Miix* (outside of South Korea)

HPHCs – The harmful or potentially harmful constituents which have been identified as likely causes of tobacco-related diseases by various public health institutions

Human Rights Impact Assessment, or HRIA – Assessments to identify human rights risks and adverse impacts

Human rights salient issues – Those human rights that stand out because they are at risk of the most severe negative impact through the company's activities or business relationships (source: UN Guiding Principles)

Illicit trade – Domestic non-tax paid products

ILO – International Labour Organization

In-market sales, or IMS – Sales to the retail channel, depending on the market and distribution model

Insetting – The act of generating a carbon credit within the corporate's sphere of influence and retiring the unit on behalf of 1 ton of carbon that has been emitted by the corporate (source: International Carbon Reduction and Offset Alliance)

IPM – Integrated Pest Management

IPS – Integrated Production System

IQOS heat-not-burn devices – Precisely controlled heating devices into which specially designed and proprietary tobacco units are inserted and heated to generate an aerosol

ITP – Illicit trade prevention

KPIs – Key performance indicators

LCA – Life-cycle analysis

LCTP – Low-Carbon Transition Plan

Low- and middle-income markets, or LMIMs – Markets comprised of countries classified by the World Bank as low- and middle-income economies based on Gross National Income (GNI) per capita; or where no World Bank classification exists, those with GNI per capita below the World Bank LMIC threshold

LTIR – Lost Time Incident Rate

Management positions – The term we generically use to refer to all positions in a defined salary grade (10) and above, regardless of their job title or function.

Managers – The term we use to refer to employees in salary grade 10 to 13

Market share for HTUs – Total sales volume for HTUs as a percentage of the total estimated sales volume for cigarettes and HTUs

M RTP – Modified Risk Tobacco Product

MVR – Monitoring, Verification, and Reporting Framework for Sustainable Leaf Curing Fuels

NCGC – Nominating and Corporate Governance Committee of PMI's Board of Directors

Net revenues related to combustible products – The operating revenues generated from the sale of these products, including shipping and handling charges billed to customers, net of sales and promotion incentives, and excise taxes. PMI recognizes revenue when control is transferred to the customer, typically either upon shipment or delivery of goods

Net revenues related to smoke-free products – Represent operating revenues from the sale of non-combustible products, including shipping and handling charges billed to customers, net of sales and promotion incentives, and excise taxes

NGOs – Non-governmental organizations

Non-combustible products – The term PMI uses to refer to products, excluding cigarettes and OTP. This may include heated tobacco units, heat-not-burn devices and related accessories, other nicotine-containing products, primarily e-vapor products, and products in wellness and healthcare

NRTs – Nicotine replacement therapies

OECD – Organisation for Economic Cooperation and Development

Offsetting – The act of purchasing a carbon credit generated outside the corporate's sphere of influence and retiring the unit on behalf of 1 ton of carbon that has been emitted by the corporate (source: International Carbon Reduction and Offset Alliance)

Other Tobacco Product, or OTP – Primarily roll-your-own and make-your-own cigarettes, pipe tobacco, cigars and cigarillos, and does not include smoke-free products

P&C – People and Culture

PCI – Portfolio of Climate Investments

PMI Regions – We manage our business in six geographical segments and an Other category: the European Union region (EU); the Eastern Europe region (EE); the Middle East & Africa region (MEA), which includes PMI's international Duty Free business; the South & Southeast Asia region (SSA); the East Asia & Australia region (EA&A); the Americas (AMCS); and Other, which includes our third quarter 2021 acquisitions of Fertin Pharma A/S, Vectura Group plc., and OtiTopic, Inc.

PMI heat-not-burn products – Include licensed KT&G heat-not-burn products

QMS – Quality management system

R&D – Research and development

RBA – Responsible Business Alliance



Refreshed devices – Smoke-free devices resulting from the care and maintenance refresh services (which may include unpacking, diagnostics, cleaning, firmware update, cosmetic parts replacement, battery charging, and repacking of devices) that meet the agreed quality requirements to allow for their re-use as pre-owned devices

Repaired devices – Smoke-free devices resulting from the care and maintenance repair services (which may include unpacking, diagnostics, testing, cleaning, battery charging, firmware update, cosmetic part or battery replacement, component harvesting, and repacking of devices) that meet the agreed quality requirements to allow for their re-use as pre-owned devices

RSP – Responsible Sourcing Principles

SBT – Science-based target

SBTi – Science Based Targets initiative

SDGs – Sustainable Development Goals

Senior leaders – The term we use to refer to employees in senior leadership roles; it includes all employees in salary grade 17 and above

Senior roles – The term we generically use to refer to all positions in a defined salary grade (14) and above, regardless of their job title or function

Smoke – A visible suspension of solid particles, liquid droplets, and gases in air, emitted when a material burns

Smoke-free products, reduced risk products (RRPs), or noncombusted alternatives (NCAs) – The terms we use to refer to products that present, are likely to present, or have the potential to present less risk of harm to smokers who switch to these products versus continuing smoking. PMI has a range of smoke-free products in various stages of development, scientific assessment and commercialization. PMI's smoke-free products contain and/or generate far lower quantities of harmful and potentially harmful constituents than found in cigarette smoke.

Smoke-free product consumables – The term PMI uses to refer to heated tobacco units used with heat-not-burn products, and cartridges containing e-liquids that are used for e-vapor products and oral nicotine products including snus and nicotine pouches

SUP – Single-use plastics

TCFD – Task Force on Climate-related Financial Disclosures

TGA – Tobacco-growing area

Tier 1 suppliers – Suppliers that directly supply goods, materials or services to PMI

Tier 2 suppliers – Suppliers that provide their products and services to the Tier 1 suppliers

TNFD – Taskforce on Nature-related Financial Disclosures

Tons – “Tons” equates to “metric tons” throughout this report

Total IQOS users – The estimated number of legal age (minimum 18 years) users of PMI heat-not-burn products, for which PMI HTUs represented at least a portion of their daily tobacco consumption over the past seven days.

The estimated number of adults who have “switched to IQOS and stopped smoking” reflects:

- for markets where there are no heat-not-burn products other than PMI heat-not-burn products: daily individual consumption of PMI HTUs represents the totality of their daily tobacco consumption in the past seven days;
- for markets where PMI heat-not-burn products are among other heat-not-burn products: daily individual consumption of HTUs represents the totality of their daily tobacco consumption in the past seven days, of which at least 70% is PMI HTUs.

Note: The above IQOS user metrics reflect PMI estimates, which are based on consumer claims and sample-based statistical assessments with an average margin of error of +/- 5% at a 95% Confidence Interval in key volume markets. The accuracy and reliability of IQOS user metrics may vary based on individual market maturity and availability of information

Total shipment volume – Includes cigarettes, OTPs, and smoke-free product consumables

TRIR – Total Recordable Incident Rate. The integrated Total Recordable Incident Rate (or iTRIR) covers PMI employees, contracted employees, and contractors.

UNGPs – United Nations Guiding Principles on Business and Human Rights

Upstream supply chain – Those operations in which the materials flow into the organization (i.e., it mainly refers to procurement activities and inbound logistics)

VAP – Validated Assessment Program of the Responsible Business Alliance (RBA) is a leading standard for on-site compliance verification and effective, shareable audits

WASH – Water access, sanitation, and hygiene

WBCSD – World Business Council for Sustainable Development

WHO – World Health Organization

ZDM – Zero Deforestation Manifesto

Key definitions related to our work to improve tobacco farmer livelihoods:

A **living income** and **living wage** are both about achieving a decent standard of living. A living income is the net annual income required for a household to afford a decent standard of living for all its members and applies to, for example, self-employed farmers. A living wage is applied in the context of hired workers (e.g., in factories or on farms) (source: The Global Living Wage Coalition).

A **minimum legal wage**, as defined in PMI's ALP Code, is a wage for all workers (including temporary, piece-rate, seasonal, and migrant) that meets, at a minimum, the national legal standard or formalized agricultural benchmark standard. An agricultural benchmark may be formalized where a minimum legal wage is not available or applicable to a specific context.

Child labor, as defined by the ILO, is work that deprives children of their childhood, their potential, and their dignity, and that is harmful to physical and mental development. Under PMI's ALP Code, the minimum age for admission to work is not less than the age at which compulsory schooling is completed and, in any case, is not less than 15 years or the minimum age accepted by the country's laws, whichever age limit affords greater protection. No person below age 18 should be involved in any type of hazardous work. In the case of family farms, a child may only help on the farm provided that the work is non-hazardous, and the child is at least 13 years old or above the minimum age for such work as defined by the country's laws, whichever affords greater protection.

Hazardous work means work that, by its nature or by virtue of when or where it is carried out, is likely to harm the health, safety, or morals of children or others. The following can, for example, be hazardous, particularly without the proper PPE: applying crop protection agents (CPA); stalk cutting; stringing; carrying heavy loads; working with sharp tools; working in extreme temperatures; and working after dark.

Green tobacco sickness, or GTS, is a type of nicotine poisoning caused by the absorption of nicotine from the surface of wet, fresh, green tobacco leaves through the skin. The characteristic symptoms of GTS include nausea, vomiting, weakness, dizziness, stomach cramps, difficulty breathing, excessive sweating, headache, and fluctuations in blood pressure and heart rate. They can last from 12 to 48 hours.¹

Personal protective equipment, or PPE, in tobacco farming refers to any clothes, materials, or devices that provide protection from exposure to CPA and GTS during specific activities throughout the crop cycle.²

Living income benchmark studies are studies conducted in specific regions or areas to estimate the net annual income required for a household to afford a decent standard of living for all members of that household.

Living Income Reference Values represent a living income for typical families in rural (or urban) areas of low-income and middle-income countries.³ Reference Values provide a credible estimate of living wage or income at a country level, for rural and urban areas. They offer an insightful reference beyond the currently available indicators for many countries, which are mostly limited to poverty lines and minimum wages.

Farmer income studies are conducted, through third-party service providers, to assess all legal income sources of contracted farmers within PMI's tobacco supply chain, including tobacco, complementary crops, and off-farm income.

1 Schep LJ, Slaughter RJ, Beasley DM (September–October 2009). "Nicotinic plant poisoning." *Clinical Toxicology*.

2 Adapted from the FAO/WHO (2014) International Code of Conduct on Pesticide Management.

3 Reference values are built on data and knowledge gained from 40 complete Anker methodology benchmark studies. Since they are based on a statistical analysis, they have a margin of error for typical rural (or urban) areas of a country, which is generally around +/- 10% using a 95% confidence interval. Sources: Living Income Reference Values | livingincome.com | Anker Living Wage and Living Income Reference Values | Global Living Wage Coalition.

Forward-looking and cautionary statements

This report and related discussion contain projections of future results and other forward-looking statements. Achievement of future results is subject to risks, uncertainties and inaccurate assumptions. In the event that risks or uncertainties materialize, or underlying assumptions prove inaccurate, actual results could vary materially from those contained in such forward-looking statements. Pursuant to the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, PMI is identifying important factors that, individually or in the aggregate, could cause actual results and outcomes to differ materially from those contained in any forward-looking statements made by PMI.

PMI's business risks include: excise tax increases and discriminatory tax structures; increasing marketing and regulatory restrictions that could reduce our competitiveness, eliminate our ability to communicate with adult consumers, or ban certain of our products in certain markets or countries; health concerns relating to the use of tobacco and other nicotine-containing products and exposure to environmental tobacco smoke; litigation related to tobacco use and intellectual property; intense competition; the effects of global and individual country economic, regulatory and political developments, natural disasters and conflicts; the continuing effects of the COVID-19 pandemic; the impact and consequences of Russia's invasion of Ukraine; changes in adult smoker behavior; lost revenues as a result of counterfeiting, contraband and cross-border purchases; governmental investigations; unfavorable currency exchange rates and currency devaluations, and limitations on the ability to repatriate funds; adverse changes in applicable corporate tax laws; adverse changes in the cost, availability, and quality of tobacco and other agricultural products and raw materials, as well as components and materials for our electronic devices; and the integrity of its information systems and

effectiveness of its data privacy policies. PMI's future profitability may also be adversely affected should it be unsuccessful in its attempts to produce and commercialize reduced-risk products or if regulation or taxation do not differentiate between such products and cigarettes; if it is unable to successfully introduce new products, promote brand equity, enter new markets or improve its margins through increased prices and productivity gains; if it is unable to expand its brand portfolio internally or through acquisitions and the development of strategic business relationships; or if it is unable to attract and retain the best global talent, including women or diverse candidates. Future results are also subject to the lower predictability of our reduced-risk product category's performance.

PMI is further subject to other risks detailed from time to time in its publicly filed documents, including the Form 10-Q for the quarter ended March 31, 2022. PMI cautions that the foregoing list of important factors is not a complete discussion of all potential risks and uncertainties. PMI does not undertake to update any forward-looking statement that it may make from time to time, except in the normal course of its public disclosure obligations.

Notes

In this report, "PMI," "we," "us," and "our" refer to Philip Morris International Inc. and its subsidiaries.

In this report and in related communications, the term "materiality," "material," and similar terms, when used in the context of economic, environmental, and social topics, are defined in the referenced sustainability standards, and are not meant to correspond to the concept of materiality under the U.S. securities laws and/or disclosures required by the U.S. Securities and Exchange Commission.

This report contains references and links to websites operated by third parties. These references are provided as a convenience to you and as an additional avenue of access to the information contained in those sources; they should not be viewed as an endorsement by us of the content of these references and linked sites or opinions of their authors.

Unless otherwise stated, all references to IQOS are to our IQOS heat-not-burn devices and consumables.

Trademarks and service marks in this report are the registered property of, or licensed by, the subsidiaries of Philip Morris International Inc., and are italicized or shown in their logo form.

Unless otherwise stated, references to total industry, total market, PMI shipment volume, and PMI market share performance reflect cigarettes and heated tobacco units

References to total international market, defined as worldwide cigarette and heated tobacco unit volume excluding the U.S., total industry, total market and market shares are PMI estimates for tax-paid products based on the latest available data from a number of internal and external sources and may, in defined instances, exclude the People's Republic of China and/or PMI's duty free business.

2020 and 2021 estimates for total industry volume and market share in certain geographies reflect limitations on the availability and accuracy of industry data during pandemic-related restrictions.



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* Note: In the fourth quarter of 2021, we announced that we will be relocating our PMI corporate headquarters from New York, New York, to Stamford, Connecticut. This move is expected to be completed by the third quarter of 2022.

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