



MARS

**Sustainable in a
Generation Plan**

2022 Scorecard



The world we want tomorrow starts with how we do business today.

Launched in 2017, the Sustainable in a Generation plan guides our sustainability efforts. We focus on four interconnected areas for purposeful growth:

Healthy Planet, Thriving People, Nourishing Wellbeing, and Transforming Packaging. Through intentional, consistent action, Mars strives to create a better world for people and pets alike.

This scorecard measures our commitment to and progress toward these ambitious, science-backed goals to drive positive change for people and the planet.

Our Goal For

A Healthy Planet

We're committed to reducing our total environmental impact in line with what science says must happen to keep the planet healthy: reducing our greenhouse gas emissions, tackling unsustainable water use, and holding our land use flat even as our business grows.

8%

**Reduction in
Greenhouse Gases**

Goal: reduce total greenhouse gas emissions across our value chain by 27% by 2025 and achieve net zero emissions by 2050

18%

**Reduction in
Unsustainable Water Use**

Goal: eliminate unsustainable water use in our value chain, starting with a 50% reduction by 2025

2%

Reduction in Land Use

Goal: hold flat the total land area associated with our value chain

Tracked against 2015 baseline

Some recent acquisitions may not have been fully incorporated into our baseline at the time of the publication of this report and for the reporting year.



Our 2022 Highlights

Reducing Greenhouse Gas Emissions

As we accelerate our progress toward [our commitment to achieve net zero greenhouse gas emissions in our full value chain](#), Mars has **reduced the GHG emissions of its full value chain by 8%** as of 2022. This is the result of our work to stop deforestation in cocoa, beef, soy, and palm, to reformulate our recipes to be climate smart, and to reduce the emissions from our operations. We've **reduced the footprint of our direct operations by 29%** by improving our operational efficiency, and by installing more energy efficient equipment and processes and through our work scaling up renewable electricity around the globe and beginning to transition away from fossil-fuel heat sources. In 2022, Mars procured 58% renewable electricity.

In 2022, the Mars Snacking ice cream factory in Steinbourg (Alsace), France completed a transition to 100% electric power and **fully transitioned away from fossil fuels**. This is our first factory in the world to stop the direct use of fossil fuels for thermal heat or electricity and is **now sourcing certified renewable electricity** (wind, hydroelectric, and solar).

[ROYAL CANIN® has committed to become certified carbon neutral by 2025](#), with its first product range achieving carbon neutral certification for 2022. Beginning in 2023, all MARS® Bars sold in the U.K., Ireland and Canada will be certified carbon neutral. Supporting this action, 100% of cocoa used in our European Mars Snacking direct factory operations will be verified as Responsibly Sourced Cocoa. This means we purchase a volume of responsibly sourced cocoa equivalent to the volumes used in our European production. Any emissions that cannot be eliminated for these Mars bars will be offset by high quality carbon removal credits based on climate solutions like reforestation and land restoration.

Creating a Climate Smart Future & Tackling Deforestation

Mars is accelerating efforts to stop deforestation and the conversion of natural ecosystems in cocoa, beef, soy, palm, pulp and paper supply chains. We're on track for our goal of a deforestation- and conversion-free supply chain for 100% of the cocoa we source by 2025. This is the largest and most significant first step that Mars Snacking and Mars, Incorporated, can take toward delivering on our ambition to [hold flat our land use, reduce greenhouse gas emissions](#) from our value chain by 27% by 2025 (vs our 2015 baseline), and [achieve net zero greenhouse gas emissions](#) across our full value chain by 2050.

Since 2022, more than 68% of our cocoa is sourced through our Responsible Cocoa program and 51% of our global cocoa supply is traced to farm boundaries from first point of purchase. **We polygon mapped 89% (>215,000)* of the farm plots from which we source cocoa**—tracing the entire perimeter of a farm rather than just one GPS location point to increase transparency and traceability.

We've also **planted more than 2 million non-cocoa trees*** to increase shade and biodiversity and **trained more than 130,000 farmers* on forest protection protocols**. In our supply chain, 50,000* farmers in 2022 have applied agroforestry techniques, and more than 376,000 hectares* in our global cocoa supply chain were included in a deforestation risk assessment.

Almost 3,000 hectares of pasture land in Latin America are currently undergoing regeneration into healthy, productive soil through our venture [Andean Cacao](#). In just two years, Andean Cacao has managed to increase the organic matter content in the soil by 14% using regenerative practices and cocoa agroforestry design. These efforts will aid in carbon sequestration and contribute to the company's goal of producing climate-smart cocoa

Over the past decade, Mars and its partners have restored coral reefs in over 30 restoration sites, across seven countries using [The Mars Assisted Reef Restoration System](#) (MARRS). **Coral cover has increased from less than 5% to 70% within two years**, enabling a 300% increase in fish. Thanks to more

than 500 Mars-trained reef builders and ambassadors, **825,000 corals have been planted on 55,000 reef stars**.

In July of 2023, Mars partnered with the government, national parks, academia, NGOs, Tourism & Diving Industry and other businesses from across the whole of Indonesia for ["The Big Build"](#)—a unique collaborative coral reef restoration effort to plant 30,000 coral fragments using 2,000 Reef Stars over just four days at [SHEBA® Hope Grows](#) in Spermonde Archipelago, Indonesia, one of the world's largest restoration efforts.

* Based on information from suppliers. Numbers are rounded and cover data through the end of 2022 unless stated differently.



Our Goal For

Thriving People

At Mars, we believe we have a responsibility to improve the lives of the people in our value chain. We strive to enable them to thrive through human rights due diligence, commitments to improving workplace conditions and income disparity, and efforts to unlock opportunities for the most vulnerable populations.

539,170

Total People Reached through Human Rights and Income Efforts

Goal: farmers, workers, women and children covered by programs designed to improve human rights and incomes

100,000+

Farmers Impacted through Increased Incomes

Goal: helping to increase farmers' incomes with programs that combine good agricultural practices, access to inputs, the latest plant science, price premiums and/or other ongoing engagement.

70,000+

Women Reached through Empowerment Efforts

Goal: engaging women in supply chains through income programs, with a focus on interventions that boost their savings rates and develop entrepreneurial skills.



Our 2022 Highlights

Increasing Income

At Mars, we believe everyone working within our extended supply chains should earn a sufficient income to maintain a decent standard of living. Our plan is based on investing in activities that have a tangible impact on the ground, beginning with our cocoa, mint and rice supply chains, where a large number of farmers are estimated to live in poverty.

Since launching in 2017, the Farmer Income Lab, a “think-do” tank founded by Mars, has reviewed more than 1,500 studies detailing common interventions to increase farmer income. FIL found that only three of them raised incomes by more than 50 percent and could be sustained over time- bundling interventions, customizing approaches, and partnering to drive impact at scale. Mars is applying these findings and other insights from the Lab in a new test-and-learn approach that combines best-practice interventions to unlock the entrepreneurship of farmers, diversify income streams and improve productivity to enhance farm resilience and accelerate incomes. The aim is to scale successful measures more widely and put **15,000 cocoa farmers on a path to sustainable living income.**

Through the [Livelihood Ecosystem Advancement Program \(LEAP\) program](#), we aim to help more than 70% of participating farmers in Cote d’Ivoire (5,000 total) achieve a living income by 2030. This would translate to **over 100% income** growth for most participating households and would help transform the rural economy to sustain incomes and economic growth beyond the program. And through [ACTIVE](#), a partnership with USAID and I4DI, we are projected to increase the income of 9,000 farmers in Indonesia by up to 15% over four years and reduce by 20% the number of participating farmers living below the living income benchmark.

Advancing Respect for Human Rights

Mars is committed to respecting human rights in our value chain, prioritizing based on where risks to people are greatest, as outlined in the UN Guiding Principles on Business and Human Rights.

Embedding child labor monitoring and remediation systems into the cocoa supply chain is key to understanding the risks to people working within it. Our first priority is to ensure our suppliers have robust child and forced labor monitoring and remediation systems in place that are designed to identify, prevent and help to remediate cases of child labor and forced labor as appropriate.

We’ve significantly expanded child labor monitoring and remediation systems (CLMRS) across our cocoa supply chain in West Africa. In total, **65% of our supply from Ghana, Côte d’Ivoire, Cameroon and Nigeria were covered by CLMRS**, reaching 135,000 cocoa farming families. By 2025, 100% will be covered. Additionally, **more than 152,000 farmers received human rights sensitization and training.**

As part of its broader Human Rights Action Plan, Mars Petcare has partnered with USAID to advance respect for rights in the fishing industry, with an initial focus on labor risks in the Thai fishing sector.

In Thailand, we reached approximately 12,000 people through our “Supplier Advance” coaching program at two Tier 1 supplier sites in Thailand – with a focus on health and safety, fair treatment at work and improved working conditions.

We are encouraged by the effectiveness of the fishing industry support centers we have supported since 2019. The centers connected more than 13,500 people—primarily migrant workers—to legal services, education and medical support since implementation. Together with Stella Maris, we’ve expanded our partnership to provide grievance support services to fishery workers on hundreds of fishing vessels at two major landing ports in Thailand.

Unlocking Opportunities for Women

In the world Mars strives to create for tomorrow, women are reaching their full potential. That’s why Mars is acting now to advance gender equality in its workplaces, in the marketplace, and in communities where it sources raw materials.

In our workplaces, women hold 48% of our management roles. We define a gender-balanced team as having 40-60% of any one gender. We know we have more work to do, but are pleased to have improved representation of women in senior leadership roles across our general management and global leadership population.

We remain committed to equal pay for equal work for all Associates. We activated more than 30 Associate Resource Groups (ARGs) focused on women as part of a growing network of 90+ ARGs and launched our Women and Allies global ARG in early 2023. These groups help create an environment where all women at Mars can thrive and reach their full potential.

In our cocoa supply chain in collaboration with CARE, the Mars [Women for Change Village Savings and Loans Association \(VLSA\) program](#) reached over **77,000 members in Côte d’Ivoire and Ghana, with more than 60,000 members in communities linked to Mars’ supply chain. Over 75% of VLSA members are women and benefit from more than \$7.4 million in total savings the program has generated.**

And building on our [#HereToBeHeard](#) global listening study, we launched a series of conversations, bringing together individuals to share their experiences with gender stereotypes in parenting and leadership to help create meaningful change to create a world where women can reach their full potential.



Our Goal For

Nourishing Wellbeing

Good nutrition, health and wellbeing are essential for people and pets to lead happier, healthier lives. We use our global reach to enhance our products' quality and nutrition, provide more people around the world with access to healthy meals, and support access to homes and veterinary care for pets in need. And we do it all while remaining committed to responsible marketing.

4.7 Billion

Healthy Meals Delivered
by Mars Food & Nutrition

Goal: Deliver 5.5 billion healthy meals per year by 2025

99.5% & 99.3%

Media Placement Compliance
& Media Content
Compliance

Goal: In our top 15 markets, achieve at least 97% media placement compliance across TV, other broadcast channels, digital, social media and print, and achieve at least 95% media content compliance++

++ Learn more about [responsible marketing](#)

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Scientific Reports, Presentations
and Posters Shared

Goal: the Mars Global Food Safety Center invests in, explores and develops science and technology solutions to help address the most pressing challenges facing the global food supply chain



Our 2022 Highlights

Providing Healthy Food

We believe a better world tomorrow is one where more people have access to healthy meals and more people cook and sit down together to enjoy shared meals.

We strive to ensure we're providing healthy food. In 2022, we delivered 4.7 billion healthy meals—bringing us to more than 9 billion healthy meals since 2021.

We're also researching new factors in health through our COcoa Supplement and Multivitamin Outcomes Study (COSMOS), a randomized, double-blind, placebo-controlled trial of 21,000 men and women over 5 years. Farmer Income Lab

The first results from COSMOS have been published in [The American Journal of Clinical Nutrition](#), and we're excited by the promise shown for flavanols in reducing cardiovascular disease risk, a major global health challenge.

Responsible Marketing

At Mars, we pride ourselves on being a leader in responsible marketing and driving growth by doing what is right. We are proud to report a **99.5% compliance result for our placement commitments** and a **99.3% compliance result for our content commitments**, based on 2021 audit data. And we're making strides toward gender-parity in all our materials so women always have a seat at the table. Our placement commitments include:

- No marketing targeted to children under 13 years old
- No placement of vending machines or event sponsorship in primary schools
- No data collection for children under 16 years old

Our content commitments include:

- Encouraging healthy lifestyles and responsible consumption
- No marketing to primarily appeal to children under 13 years old
- Following our advertising guidelines for positive behaviors

Improvements in gender parity include:

- Female characters are now as likely as male characters to be depicted in leadership positions.
- Female characters have the same amount of screen time as male characters.
- There are no gender differences for portrayals of work.

Caring for Pets' Futures

The [MARS PETCARE BIOBANK™](#) aims to be the largest, most comprehensive real-world study of its kind. We are **planning to recruit 20,000 pets (10,000 dogs and 10,000 cats) over 10 years**. The biobank study will generate data from the samples collected in order to gain insights about changes in health status and understand the differences between pets that remain healthy as they age and pets that develop diseases. By enrolling their pets in the study, pet owners can help enable new scientific discoveries to improve pet health for generations to come.

In collaboration with Process Integration and Predictive Analytics (PIPA) and the Royal Veterinary College, [our Antech Diagnostics colleagues developed an AI-driven diagnostic test](#) that can accurately predict a cat's chances of developing chronic kidney disease (CKD) up to two years before any clinical signs. So far, owners of more than 200,000 cats have been given early warning that their pets are at risk of developing this condition. CKD is also common in dogs. Because they live shorter lives than cats with CKD, early detection is vital. In partnership with PIPA, our scientists and veterinary teams **built a computer algorithm that can predict with 99% accuracy which dogs would not go on to develop CKD in the next 3.5 years**.

Ensuring Safe Food

A focus on food safety is critical to protecting people, pets and the planet. Through the Mars Global Food Safety Center (GFSC) and beyond, we are striving to increase supply chain resilience and work in partnership with NGOs—such as World Food Programme, the UN Food and Agriculture Organization, universities, regulators, and industries around the world—to develop novel solutions, improve practices and advance technology. Mars Advanced Research Virtual Environment Lab (MARVEL)

provides Mars with the computational infrastructure required to carry out next-generation data analytics processes and gives us access to scientists with expertise in computational methods. Mars is using MARVEL in the food safety arena to predict the likelihood of aflatoxin in maize, ensuring that Mars can make informed predictions about aflatoxin contamination and that the raw materials that we buy are safe for everyone.



Our Goal For

Transforming Packaging

At Mars, we intend to contribute to a circular economy where packaging material never becomes waste. We're investing hundreds of millions of dollars and redesigning more than 12,000 packaging components to ensure we're using 100% recyclable, reusable or compostable packaging.

Our top 300 executives now have remuneration linked to delivering against our packaging targets, highlighting the importance of these commitments, and today, almost half of our packaging portfolio is undergoing redesign.

20%

of Packaging in Our Portfolio Is Reusable, Recyclable or Compostable

Goal: Transform 100% of our portfolio into reusable, recyclable or compostable packaging

45%

of Packaging Is Designed for Recycling

Goal: Redesign our packaging to fit infrastructure that exists today or is likely to exist in the near future. ‡

Tracked against 2019 baseline

**~1,000
or 1%**

Metric Tons of Recycled Content

Goal: Incorporate 30% recycled content in our packaging



Our 2022 Highlights

Eliminating Unnecessary Plastic and Improving Packaging Recyclability

Our highest priority is to eliminate all problematic and unnecessary packaging materials from our portfolio, to prevent any of our packages from contaminating the recycling stream, and to reduce our use of virgin plastic. Following elimination we are redesigning our remaining packaging to be recyclable or compostable, ensuring that it fits with the recycling infrastructure that either exists today or is likely to exist in the future in the markets where we operate, making it easier for consumers to recycle our packaging.

Select “Standard” and “More to Share” sharing pouches of some of Mars Snacking U.K.’s favorites are now narrower in the U.K. and Ireland. This has **reduced plastic used by around 647,000 square yards a year—the equivalent area of over 90 football fields**. It also means that with some brands, we can fit more packs into the boxes we ship, increasing our efficiency and **taking the equivalent of 90 truckloads of boxes off the road each year**.

Mars Snacking China also eliminated 450 tons of plastic use through their Extra Light Weighting Project, as well as 580 tons of virgin plastic by decreasing materials in the DOVE® canister and DOVE® 43g bars.

Our SHEBA® and PERFECT FIT™ Mini Pouches, WHISKAS® and CATSAN® pet nutrition brands in Europe transformed their packaging to reduce unnecessary materials and improve recyclability. These initiatives contributed to **saving 480 tons of plastic per year—equal to the weight of 1.6 million dog food bags**. In North America, we are scaling deployment of single material, ‘recycle-ready’ packaging for large bags of PEDIGREE®, NUTRO®, and IAMS® dry pet food – a change impacting over 74 million bags per year. The new material is also more efficient, resulting in a significant packaging reduction across the portfolio.

Redesigning Packaging to be Refilled and Reused

We’re exploring innovative reuse models that eliminate waste altogether, with a goal to launch at least 10 new programs that test reusable packaging in markets. We’re already well underway with nine programs deployed so far.

In collaboration with Bestore in China, our reusable M&M’S® packaging had a 24% refill rate across 17 outlets in five cities. We estimate the **refills will save about seven tons of plastic every year**.

In France, Mars Snacking and Mars Petcare launched their first-ever bulk delivery system with supermarket giant Carrefour. By 2030, all Carrefour stores larger than 400 square meters will dedicate 20% of their space to bulk sales, which is a great example of why we’re participating with early test-and-learns like these as part of our packaging redesign strategy.

In 2022, ROYAL CANIN® established a partnership with RePack to pilot a sustainable solution for home deliveries. Through this collaboration, pet owners can receive their ROYAL CANIN® Individualis™ order in returnable RePack delivery packaging. Once empty, the packaging can be circled back through the postal system for free to be cleaned and reused. This process can be repeated up to 20 times.

Investing to Close the Loop

We are actively collaborating to drive true systems change through partnerships with governments, NGOs, suppliers, packaging developers, and industry. To stimulate investment into global recycling systems we are working toward incorporating 30% recycled content on average across our plastic packaging portfolio. And we’re calling for the improvement of these systems through legislation and industry collaboration, to ensure adequate supply of food-safe recycled content and to increase consumer access to recycling services.

In a recent collaboration with packaging supplier [Berry Global](#), we launched new club jars made from recycled content for M&M’S®, STARBURST®, and SKITTLES®. The new jars contain **15% recycled plastic, replacing about 300 tons of virgin plastic per year and saving 374 metric tons of carbon dioxide**.

On World Environment Day in 2022, Mars Petcare joined forces with Second Life, a social enterprise that supports companies to develop recycling solutions for packaging that would otherwise be discarded as waste. Together, we launched the [SWAP Recycling app](#), which allows users to

ship any flexible and complex plastic waste for recycling in exchange for reward points and discounts on Mars Petcare products and other brands. The app is available in the Apple App Store and Google Play.

To date, more than **150,000 bags of used plastic packaging have been collected and converted into useful products**. We even used cat-shaped paving blocks made of waste plastic to pave outdoor areas of our new pet food manufacturing plant in Chonburi!



Healthy Planet Deep Dive

Reducing Greenhouse Gases

We have pledged to achieve net zero greenhouse gas emissions across our full Mars value chain by 2050. As one step toward that goal, we've reduced GHG emissions of our full value chain by 8% since 2015.

[Read More on Page 12](#)

Eliminating Supply Chain Deforestation

Mars is accelerating efforts to stop deforestation and the conversion of natural ecosystems in cocoa, beef, soy, palm, pulp & paper supply chains. We're on track to have 100% deforestation- and conversion-free cocoa, in our supply chain by 2025.

[Read More on Page 13](#)

A Climate- Smart Future

We're catalyzing innovation and sustainable farming practices to build a resilient and thriving cocoa ecosystem, reaching consumers through carbon neutral certifications for select products, and striving for water balance in critical factories.

[Read More on Page 14](#)

Protecting Our Oceans

Mars is committed to preserving our oceans. We've joined with WWF and others to address the overexploitation of fisheries. Through SHEBA® Hope Grows, Mars and partners have planted 825,000 corals, increasing coverage from 5% to 70% in 2 years.

[Read More on Page 16](#)

Reducing Greenhouse Gases



We're headed in the right direction to **reduce our GHG emissions from our full value chain by 27% by 2025.**

As we accelerate our progress toward [our commitment to achieve net zero greenhouse gas emissions in our full value chain](#), Mars has **reduced the GHG emissions of its full value chain by 8%** as of 2022 compared to our 2015 baseline. This is the result of our work to stop deforestation in cocoa and palm, to reformulate our recipes to be climate smart, and to reduce the emissions from our operations.

In our own operations, Mars is committed to reducing our emissions 42% by 2025. This year, we've **reduced the footprint of our direct operations by 29% compared to 2015** by improving our operational efficiency, and by installing more energy efficient equipment and processes and through our work scaling up renewable electricity around the globe and beginning to transition away from fossil-fuel heat sources. We sourced 25% of energy from renewable sources, on our journey to 100% renewable energy by 2040. 58% of electricity sourced was renewable in 2022.

As an example of our efforts, in 2022, the Mars Snacking ice cream factory in Steinbourg (Alsace), France **completed its transition away from fossil fuels, with all its production**

energy needs being met with 100% renewable, electrical energy. This is our first factory in the world to stop the direct use of fossil fuels for thermal heat or electricity and is **now sourcing certified renewable electricity** (wind, hydroelectric, and solar). The transition puts Mars Snacking France's Steinbourg factory, which produces all the ice cream for Europe and the UK, at the forefront of our global initiatives to achieve net zero emissions across our operations and for our full value chain by 2050 (scopes 1, 2, and 3).

We estimate that more than 65% of our full value chain carbon footprint comes from agricultural and land use change emissions associated with the ingredients we source to make products. Therefore, we are working to transform key supply chains by partnering with suppliers, farmers and others to stop deforestation and produce ingredients more efficiently for a lower carbon footprint. We're working towards climate-smart agriculture which reduces GHGs, regenerates soils and biodiversity, and increases agricultural resilience to climate shocks in key agricultural supply chains across our business.

Rice is a critical raw material for Mars Food & Nutrition, but it also plays an important role in the world's diet and economic prosperity. Rice is a daily staple for 3.5 billion people around the world and provides income to around 19% of the world's population.

One of the world's biggest rice brands, BEN'S ORIGINAL™, is continuing to make rice more sustainable and helping people and the planet thrive. Our focus is on making rice farming more sustainable by reducing the amount of irrigation water, minimizing GHG emissions and increasing yields.

In our rice supply chain in Asia, through partnerships with NGOs and with our suppliers, we have been working with farmers to reduce the GHG and water footprint in our rice supply chain and incentivize farmers to apply pioneering climate smart practices, including regenerative agriculture techniques and the standard practices recommended by the [Sustainable Rice Platform](#). SRP offers farmer-friendly tools to help drive the transformation of rice supply chains. The SRP Standard for Sustainable Rice Cultivation, the world's first voluntary sustainability standard for rice, helps farmers boost their yields and incomes whilst protecting the environment.

Planning for the Future

In October 2021, we announced our science-based climate target to achieve net zero GHG emissions across our full value chain by 2050. That includes all Scope 3 emissions from agriculture activities and suppliers from all our brands. In fact, about 95% of our entire footprint is in Scope 3. As the first step in our journey towards Net Zero, we've analyzed our GHG emissions and the potential solutions. We're focusing our efforts on six big bets that will take us to net zero: Renewables, Stopping Deforestation, Recipe Optimization, Climate Smart Agriculture, Logistics, and Packaging.

We know that we can't achieve Net Zero alone, and we particularly need partnership from our tens of thousands of suppliers. Toward that end, we joined forces with 20 of our peers, including Pepsi and McCormick, to establish the Supplier Leadership on Climate Transition, a 5-month consulting bootcamp for suppliers to help them:

- Measure their GHG inventory
- Understand what drives their emissions
- Set targets
- Develop a game plan

49% of our raw material carbon footprint is now covered by suppliers that have a Science Based Target, are committed to setting Science Based Targets, or are on their way through our Supplier Leadership on Climate Transition to set one. We are fully committed to operating our business in a way that's sustainable for our planet, now and in the future.



Combating Deforestation in Our Supply Chain



Mars is accelerating efforts to stop deforestation and the conversion of natural ecosystems in cocoa, beef, soy, palm, pulp & paper supply chains by 2025. As of 2022, we're making progress across these supply chains:

- Cocoa: 68% responsibly sourced*
- Palm Oil: 100% deforestation & conversion free
- Beef: 93% low-risk***
- Soy: 98% low-risk***
- Pulp & Paper: 97% recycled or certified**

We've now **polygon-mapped** almost **89% of the plots (>215,000)** from which we source cocoa globally. Knowing the precise boundaries helps provide a more accurate picture of the farm's location, rather than just one GPS location point. This is essential to protect the forests and stop deforestation.

In 2022, more than 330,000 hectares in our cocoa supply chain in Côte D'Ivoire and Ghana were included in a deforestation risk assessment—with 376,000 hectares assessed globally.

To help avoid the worst effects of climate change and promote healthier forests, more trees need to be planted. We have worked alongside suppliers and civil society partners

to distribute more than 2 million new non-cocoa trees to increase important biodiversity and shade and to help capture carbon.

We're also tackling forest loss linked to cocoa production as a critical element of our 2025 Responsible Cocoa commitments. Our goal is for all cocoa we source to be traceable and deforestation-free by 2025 – key to reducing carbon emissions in our supply chain.

Mars Snacking is on track to reach its global goal of 100% of its cocoa being sourced through its Responsible Cocoa program and traceable to first point of purchase by 2025. As of the end of 2022, 68% of the company's global cocoa was sourced through the Responsible Cocoa program, with 51% of its global supply traceable to farm boundaries from first point of purchase.

While achieving a deforestation-free supply chain for all the cocoa we source by 2025 will be a key enabler toward delivering on our ambition to hold flat our land use, reduce greenhouse gas emissions from our value chain by 27% by 2025 (vs our 2015 baseline), and achieve net zero greenhouse gas emissions across our full value chain by 2050, to truly achieve our climate ambitions and to support building resilience for the next generation of farming communities, we are leveraging transformative science and the implementation of climate-smart and regenerative agricultural practices.

Mars scored an A in CDP's 2022 Climate survey and an A- across the board for forest commodities in CDP's 2022 Forest survey, which recognize leading companies working toward a more sustainable future. Outperforming the industry, as part of our Beef and Soy Sourcing & Deforestation Action Plans, we achieved A- for beef and soy, putting us amongst the top 4% of companies in our group for beef and the top 6% for soy.

The ongoing work in this area is key to delivering our net zero ambitions. The largest share of our emissions is associated with land use change and agricultural practices, linked with multiple raw materials we buy.



* Mars sources cocoa under its Responsible Cocoa program via the mass balance approach, where all the cocoa we source under this approach corresponds with the cocoa produced by farmers in our Responsible Cocoa programs. Cocoa from farmers in these programs can be physically traced from the farmer to the first point of purchase. For information on the responsible sourcing of cocoa under our Responsible Cocoa program, please see here.

**We are excluding Russian fiber from certification/DCF KPIs due to the geopolitical situation. This fiber was fully compliant with our sourcing policy, however, Russian fiber can no longer be considered certified while the conflict continues. We are making appropriate adjustments internally and will resume reporting full fiber KPIs, including Russian, next year.

*** For countries identified at risk for deforestation, we work with partners to run a geospatial risk analysis using the information provided by our suppliers, satellite imagery, and other data sources. The risk analysis provides us with insights on how exposed our suppliers are to the conversion of natural ecosystems and other potential breaches to our commitments, which in turn allows us to take the appropriate measures to help address these risks. More can be found on our [Policy and Practices](#) webpages.

† Some recent acquisitions may not have been fully incorporated into our baseline at the time of the publication of this report and for the reporting year.

A Climate-Smart Future



We are accelerating action toward our commitment to achieve net zero greenhouse gas (GHG) emissions across our full value chain by 2050. We are working together with suppliers, farm organizations and with farmers, to support farmers in the transition toward climate smart and regenerative agriculture, to help achieve our shared goals. This is an important area of focus to reduce emissions, protect soil health and drive productivity.

Cocoa & Climate

Mars is adopting a “climate-smart” agriculture approach, which means that beyond reducing greenhouse gas (GHG) emissions from land use, our cocoa sustainability programs are focusing on regenerating and improving soil health, as well as increasing biodiversity and climate resilience.

In partnership with others, leveraging decades of research in soil management, crop production (agronomy) and plant science, we are also investing in larger-scale farming research, operations and strategic planning to help pioneer new methods of cocoa-growing practices that have the potential to regenerate soil, improve biodiversity and positively impact communities.

With the ability to make sustained investments in science and technology, we have been able to establish ourselves

as an industry trailblazer in the field of cocoa science and technology for over four decades.

We have been conducting research through our diverse cocoa research centers, demonstration farms and pilot projects across Brazil, Ecuador, and Indonesia, as well as at our cocoa germplasm site in Davis, California.

We are incredibly proud of the revolutionary work being carried out at our UC Davis Mars Greenhouse. We’re fixing the game in favor of the farmer and our planet through a groundbreaking new app that can determine the health of the cacao tree at the touch of the button, the development of a **new generation of climate-smart cocoa plants** that are more drought-resistant and durable to pests and diseases, and a pioneering diagnostic test kit that will help stop the spread of devastating disease. Developed in collaboration with SwissDeCode, this easy-to-use **Virus Rapid Detection Kit identifies swollen shoots within just 60 minutes** in asymptomatic cocoa plants. This could be a significant development in preventing spread and reducing the negative impact caused by replacing diseased trees, which take 7 years to mature.

In operating Mars La Chola in Ecuador, our commercial and scientific demonstration farm, we are exploring and trialing ways to catalyze a shift in the cocoa sector by demonstrating the viability of climate-smart and transformative agricultural models and cross-fertilizing learnings and opportunities in collaboration with forward thinking experts such as Kennemer and Andean Cacao.

Through our venture with [Andean Cacao in Latin America](#), almost **3,000 hectares (7,400 football fields) of pasture land are being regenerated into productive, healthy soil.**

Seeking Balance Through Carbon Neutral Products

As we accelerate our progress toward our commitment to [achieve net zero greenhouse gas emissions in our full value chain](#), **ROYAL CANIN® will be certified carbon neutral in 2025.**

ROYAL CANIN® has committed to become certified carbon neutral by the end of 2025, with its first product range, Kitten and Puppy Growth Programs, achieving carbon neutral certification for 2022.

The four action areas ROYAL CANIN® will pursue to be carbon neutral by 2025 are: transitioning to renewable electricity, procuring sustainably sourced ingredients, reducing waste and boosting circularity, and initiating a climate-smart business transformation. In addition to the reduction and efficiency efforts, carbon neutrality would be achieved and maintained annually through high-quality removal-based verified carbon credits.

Beginning in 2023, all MARS® bars sold in the U.K., Ireland and Canada will be certified carbon neutral. Supporting this action, **100% of cocoa used in our European direct factory operations will be verified as Responsibly Sourced Cocoa** (meaning we purchase a volume of responsibly sourced cocoa equivalent to the volumes used in our European production), and **Mars Snacking has reduced emissions from our direct operations by 32% since 2015.** Any emissions that cannot be eliminated for these Mars bars will be offset by high quality carbon removal credits based on climate solutions like reforestation and land restoration. For chocolate lovers—who buy more than 220 million MARS® bars a year—their treat will come with the added benefit of buying from a business that is working to supercharge their climate efforts, transform their supply chain, improve agricultural practices and drastically decrease deforestation.

[Click here to learn more about our certified carbon neutral products.](#)

A Climate-Smart Future

Role of Carbon Credits in the Carbon Neutral Certification for MARS® Bar and ROYAL CANIN®

Carbon neutrality is a state in which human activities result in no net effect on the climate system as defined by Intergovernmental Panel on Climate Change (IPCC). For a product, this is achieved by calculating the GHG footprint through a life cycle assessment and reducing it to zero through a combination of reduction/efficiency measures within the operations and using carbon credits to offset the remaining emissions.

For a product to achieve and maintain carbon neutrality in a specific time, the entire footprint of the product for that period must be offset with carbon credits.

Mars purchases removal credits only. Removal credits come from projects or activities that absorb or pull carbon from the atmosphere. The projects underlying these carbon credits are validated, verified, and retired according to internationally known standards such as the Gold Standard, Verified Carbon Standard, and American Carbon Registry.



Water Reduction Plan

Across the world, of the ten Mars manufacturing plants identified as the most in need for urgent water action, half are in Mexico. We've introduced a [Water Balance Plan](#) with the following three critical steps:

- Advancing water-stewardship programs to improve water efficiency
- Achieving water circularity by ensuring treated wastewater is discharged in a way that reduces stress in watersheds and prevents negative impact on the local water cycle
- Working collaboratively to balance remaining residual water use by funding water conservation projects in each site's water catchment

Through our Guadalajara pet food production site, Mars Mexico has become a partner in "Charco Bendito" a unique collaborative project in Jalisco, Mexico. The project involves nine companies, the local community, and committed local partners working collaboratively to address complex watershed challenges at the basin level, help to provide a water-secure future, and collaboratively conserve 355 hectares. To date, progress has been made with 125 restored hectares to improve the quality and quantity of water in the region. Key activities include planting native vegetation to increase groundwater levels and reduce soil loss, improving water infrastructure, and increasing awareness about the importance of water conservation.

In 2021, Mars completed the acquisition of KIND®. The KIND® product portfolio is rich in almonds, which are primarily sourced from California with a commensurate impact on our unsustainable water use. KIND® is working to better understand how these impacts can be addressed particularly through regenerative agricultural methods.

We have also improved our locational understanding of water impacts and how they are linked to the average water stress within the supply sheds of the 5 highest water impact materials we source (rice, mint, corn, wheat, and almonds). Whilst these two changes accounted for a 6% increase in unsustainable water use compared to 2021, overall since 2015, Mars has reduced unsustainable water use by 18%, primarily through the implementation of improved agricultural practices in rice and mint.



Protecting & Restoring Our Oceans



The [Mars Assisted Reef Restoration System](#) (MARRS) uses hexagonal steel structures known as Reef Stars. They are coated with sand onto which live coral fragments are tied. The Reef Stars are installed in a stable web on top of coral rubble fields that show no signs of recovery, which, over time, [are transformed back into flourishing reefs](#).

In over thirty restoration sites across the globe, alongside our partners, **825,000 corals have been planted. Coral cover has increased from less than 5% to 70%** within two years, enabling a **300% increase in fish**.

The average size of fish on SHEBA® Hope Grows has increased by 175%, and there has been a 10% rise in the number of fish species since 2019.

The Big Build

In July 2023, Mars partnered with the government, national parks, academia, NGOs, the Tourism & Diving Industry, and other businesses from across the whole of Indonesia for “The Big Build”—a unique collaborative effort to **plant 30,000 coral fragments using 2,000 Reef Stars over just four days** at SHEBA® Hope Grows in Spermonde Archipelago, one of the world’s largest restoration efforts.

Building on the success of SHEBA® Hope Grows ([visible on Google Maps](#)), by the end of the decade, we plan to restore more than 185,000 square meters of reef by planting a total of 2 million corals globally. That’s roughly 150 Olympic swimming pools!

Sourcing Sustainably

Mars joined WWF and Finance Earth in a new collaboration to set up a [Fisheries Improvement Fund \(FIF\)](#), a new concept to finance Fisheries Improvement Projects, aiming to address the overexploitation of fisheries. Mars committed to **provide \$1 million to the Fishery Improvement Fund** to be invested into FIPs over the next five years.

Through this innovative blue finance mechanism, Mars is supporting the development of new models that can provide a consistent source of funding for global fisheries reform, with a clear aim to positively impact our oceans.

ROYAL CANIN® has identified specific varieties of micro algae that can serve as an alternative source of essential omega-3 fatty acids. Some marine algae species naturally produce omega-3 acids using energy from sunlight in the oceans. In the process, they capture carbon dioxide and release oxygen. By replicating this process on land through fermentation, ROYAL CANIN® can now source these products using sustainable technology.



Thriving People Deep Dive

Increasing Income

We believe everyone working within our extended supply chains should earn sufficient income to maintain a decent standard of living.

[Read More on Page 18](#)

Advancing Respect for Human Rights

Mars is committed to understanding and taking action to address salient human rights issues—the critical issues that form the basis of our global human rights priorities.

[Read More on Page 19](#)

Unlocking Opportunities for Women

In the world Mars strives to create for tomorrow, women are reaching their Full Potential. That's why Mars is acting now to advance gender equality in its workplaces, in the marketplace, and in communities where it sources raw materials.

[Read More on Page 21](#)

Power of Partnerships

Through our work with the Livelihoods Fund For Family Farming (L3F), we've committed more than \$6.5 million in initiatives that include empowering women in coconut, vanilla and shea-sourcing communities.

[Read More on Page 22](#)



Supporting Cocoa Farmers on a Path to a Sustainable Living Income



Cocoa is key to our global chocolate brands and to the livelihood of an estimated 350,000 cocoa farmers in our supply chain.

Most cocoa today is grown on small family farms with little access to electricity, clean water, reliable roads or quality schools. Compounding these challenges are negative effects of climate change and persistent market failures, such as:

- Disconnection from formal financial systems,
- Underdeveloped cooperative management practices,
- Unsustainable prices, and
- Lack of alternative income sources to offset market volatility

These obstacles can leave cocoa farmers in poverty, unable to invest in or grow their businesses due to factors beyond their control. Despite past industry efforts to improve farmer livelihoods, the unfortunate reality is that smallholder farmer poverty has not been sufficiently improved.

The Farmer Income Lab (FIL), a “think-do” tank founded by Mars, reviewed more than 1,500 studies detailing common interventions to increase farmer income. FIL found only three of them raised incomes by more than 50% and could be sustained over time bundling interventions, customizing approaches, and partnering to drive impact at scale. Mars is applying these findings and other insights from the Lab in a new test-and-learn approach that combines best-practice interventions to unlock the entrepreneurship of farmers, diversify income streams, and improve productivity to enhance farm resilience and accelerate incomes. The aim is to scale successful measures more widely and **put 15,000 cocoa farmers in Ghana, Côte d’Ivoire and Indonesia on a path to sustainable living income.**

[Mars, Fairtrade, and ECOOKIM](#) embarked on a holistic development journey to achieve and maintain a living income for cocoa growing communities. Drawing on more than 10 years of collaboration between the project partners, the [Livelihood Ecosystem Advancement Program \(LEAP\) program](#) intends to address past market failures and permanently improve outcomes for farmers. This unique initiative integrates measures that promote systemic change. The goal is to establish the fastest, most efficient, most viable route to a living income for all cocoa farmers.

LEAP aims to **help more than 70% of the 5000 participating farmers in Cote d’Ivoire achieve a living income by 2030.** This would **translate to over 100% income growth** for most participating households and would help transform the rural economy to sustain incomes and economic growth beyond the program.

And through [ACTIVE](#), a partnership with USAID and I4DI, we are projected to increase the income of 9,000 farmers in Indonesia by up to 15% over four years and reduce by 20% the number of participating farmers living below the living income benchmark.



Advancing Respect for Human Rights & Preventing Hazardous Child Labor



Advancing Respect for Human Rights

We focus on advancing respect for human rights in our extended supply chains in close collaboration with our suppliers, their business partners, the industry, government, civil society organizations, and communities. We prioritize work on supply chains in which the most severe human rights risks may be present, including, cocoa, fish, palm oil, mint and sugar.

In 2022, more than 152,000 cocoa farmers received human rights sensitivity training. Embedding child labor monitoring and remediation systems into the cocoa supply chain is key to understanding the risks to people working within it.

Our first priority is to ensure our suppliers have robust child and forced labor monitoring and remediation systems in place that are designed to identify, prevent and help to remediate cases of child labor and forced labor as appropriate. We've significantly expanded child labor monitoring and remediation systems (CLMRS) across our cocoa supply chain in West Africa. In total, 65% of our supply from Ghana, Côte d' Ivoire, Cameroon and Nigeria were covered by CLMRS, reaching 135,000 cocoa farming families.

By 2025, 100% will be covered.

We continued to progress "Supplier Advance" programs across supplier factories to reach more than 19,500 people. These programs are intended to focus on issues such as responsible recruitment, health and safety, gender equality and addressing workplace discrimination. Examples of worker-reported impacts from select completed Supplier Advance programs include 23% increase in workers feeling respected at work in India and 26% increase in workers feeling valued and recognized for their work in Philippines.

And we reached approximately 12,000 people through our "Supplier Advance" coaching program at two Tier 1 supplier sites in Thailand—with a focus on health and safety, fair treatment at work and improved working conditions.



Photo by Luke Duggleby for USAID Thailand Counter Trafficking in Persons

Fish

While the proportion of fish we use for pet food accounts for a small share of the global fish market, as a purpose-driven business, we believe we can make an important contribution to improving environmental and social impacts in fish supply chains.

Mars Petcare sources fish in Thailand, and we began activating our Thai Fish Human Rights Action Plan in 2016. We have continued to evolve our work in Thailand. In 2022, we prioritized actions to consolidate our supply chain to

increase our visibility and improve oversight; activated our Next Generation Supplier Program with our Tier 1 suppliers; initiated multiyear collaborations designed to improve efforts to monitor, address, and prevent human rights risks for local and international fishing vessels; and engaged in more targeted advocacy on responsible recruitment with the Seafood Taskforce.

We completed our four-year collaboration with USAID on a Connectivity@Sea Technology and Ethical Recruitment to test and learn from digital solutions to strengthen worker voices while at sea and enhance transparency in recruitment processes. This work has informed government focus on expansion of the Connectivity@Sea technology across all coastal provinces of Thailand.

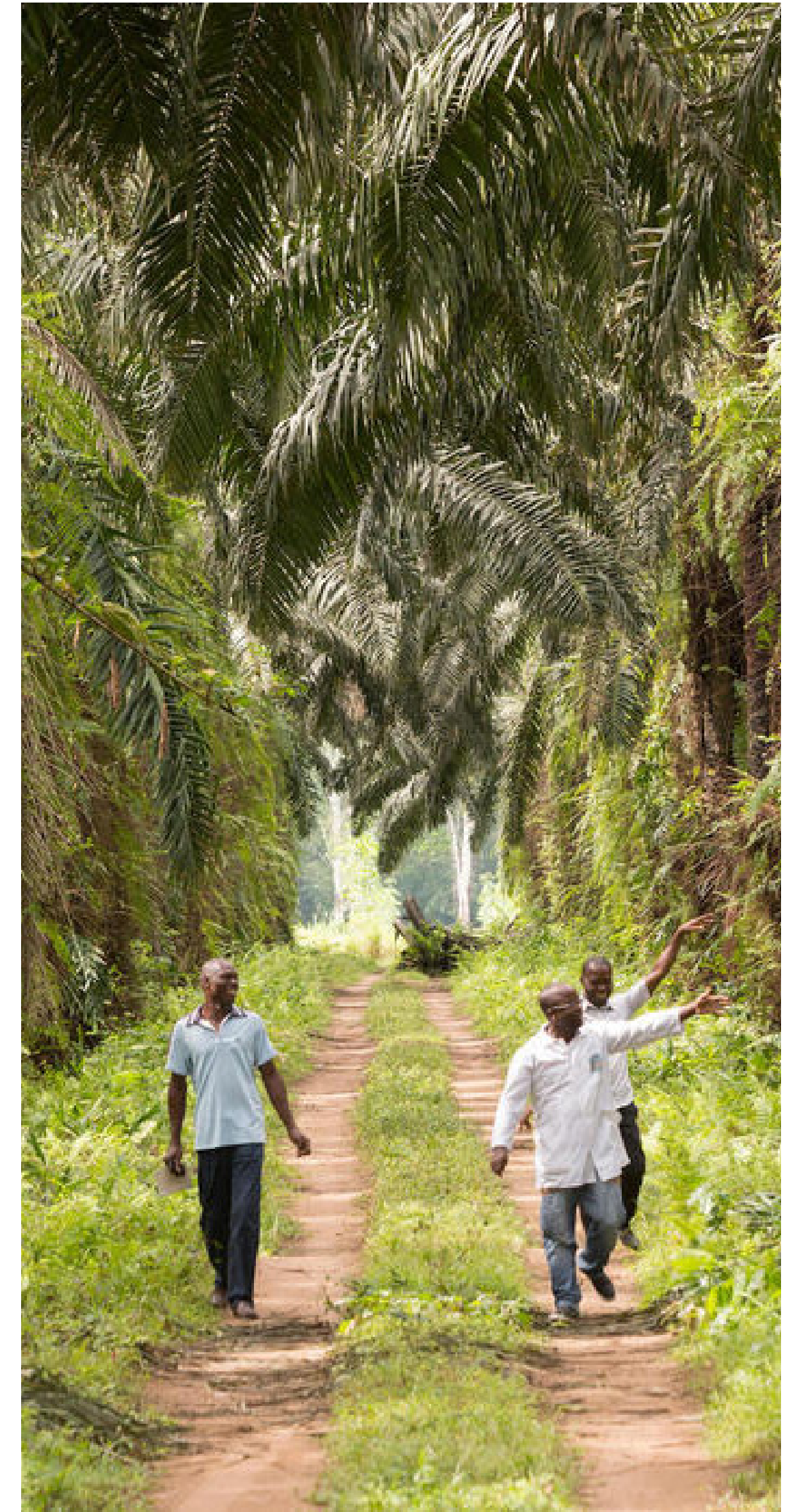
We are encouraged by the effectiveness of the fishing industry support centers we have supported since 2019. The centers **connected more than 13,500 people—primarily migrant workers—to legal services, education and medical support since implementation began.** Together with Stella Maris, we've expanded our partnership to provide grievance support services to fishery workers on hundreds of fishing vessels at two major landing ports in Thailand.

Palm Oil

In 2022, we deepened our collaboration with suppliers to support their efforts to advance respect for human rights. In Malaysia, we are working on a multiyear collaboration with a palm oil supplier and Verité Southeast Asia focused on remediation of worker-paid recruitment fees and new recruitment practices moving forward, including:

- Designing and implementing an improved ethical recruitment model, including direct recruitment;
- Enhanced grievance mechanisms and communication processes to understand effectiveness of this model; and
- Identifying and addressing recruitment fee risks.

Partnerships with third-party experts and industry groups supported our efforts in palm supply chains in 2022. We supported Verité to develop a [palm oil producer toolkit](#) aimed at helping palm oil mills and plantations address worker rights issues, manage labor risks and improve working conditions.



Advancing Respect for Human Rights & Preventing Hazardous Child Labor

Cocoa

Access to quality education and development opportunities for children are critical components of driving better long-term futures for children in cocoa-growing communities. Investing in education can have a positive circular effect: educated children can earn higher incomes as adults and contribute more to the development of their own children, households and communities.

In 2020, we made a \$3.3 million investment to support the Jacobs Foundation's creation of two [public-private funding facilities](#) aimed at promoting quality education and early childhood development and nutrition, in line with the Côte d'Ivoire's government strategic objectives in the fight against child labor. Led by the Ivorian Government and supported by the Jacobs Foundation, UBS Optimus Foundation, and 16 prominent cocoa and chocolate companies, the Child Learning and Education Facility was officially launched in June 2022. We continue to support early childhood development programs and vocational training programs through suppliers.

In 2022, we invested \$500,000 in Lead For Ghana (LFG), a leadership development and network organization, partnering with like-minded organizations such as ECOM, Touton, and Ofi. Together, we aim to create enhanced educational opportunities for children in Ghana while simultaneously addressing gender inequality and child labor. Through a two-year leadership development fellowship, LFG engages and empowers Ghana's most talented recent university graduates and young professionals to teach Science, Mathematics, Information Technology, and English in demanding educational settings.

Tier 1 Suppliers

In 2019, we launched our Next Generation Supplier program – an enhanced approach with a focus on not only understanding human rights risks, but also deeper engagement with our suppliers to address those risks. We have continued to progress Supplier Advance programs across supplier factories in eight countries, designed to reach more than 19,500 people. These programs have focused on issues such as forced labor risks; health and safety; gender equality; and addressing workplace discrimination.

Positive changes in the factory environment and in workplace communication are key outcomes of Supplier Advance that have tangible effects for workers. One supplier in Thailand saw a 16% improvement in workers reporting having a good relationship with their supervisor at the end of the program. More workers reported being listened to by their managers and that their personal safety was a priority for their management.



Improving the Lives of Women Across the Globe



In our workplaces, women hold 48% of our management roles. We define a gender-balanced team as having 40-60% of any one gender. We know we have more work to do but are pleased to have improved representation of women in senior leadership roles across our general management and global leadership population.

We remain committed to equal pay for equal work for all Associates. We activated more than 30 Associate Resource Groups (ARGs) focused on women as part of a growing network of 90+ ARGs and launched our Women and Allies global ARG in early 2023. These groups help create an environment where all women at Mars can thrive and reach their full potential.

In our cocoa supply chain in collaboration with CARE, the Mars Women for Change Village Savings and Loans Association (VLSA) program reached over 77,000 members in Côte d'Ivoire and Ghana, with more than 60,000 members in communities linked to Mars' supply chain. Over 75% of VLSA members are women and benefitting from more than \$7.4 million in total savings the program has generated.

The CARE and [Mars Women for Change](#) program works with women and their families in cocoa-growing communities to improve livelihoods so that they can thrive. The program aims to increase gender equity in households and communities while supporting increased savings, improved skills, income growth and diversification, improved school enrollment rates, and increased nutrition. The program also works to shift social norms and reduce gender-based violence by engaging men to encourage joint saving and decision-making. This innovative approach uses a smart mix of solutions to reinforce women's role in the cocoa supply chain.

Women and girls' empowerment is a dynamic and transformative process of change, which requires addressing gender inequalities and disempowerment across multiple dimensions. To address these challenges, we partnered with the [Royal Tropical Institute \(KIT\)](#) to conduct qualitative research on empathy and viability to understand and explain behaviors, experiences, and attitudes in relation to the inequality and disempowerment that women face in their daily lives in cocoa growing communities in Côte d'Ivoire, Ghana, and Indonesia. It was concluded that the longer-term, often overlooked and neglected "mainstreaming" work of changing mindsets and social norms is essential if we want to make meaningful progress in lowering barriers to equality, reducing poverty, and unlocking the full potential of women and girls. Mars is taking action by [embedding a gender transformative lens](#) into its cocoa policies, strategies, partnerships and programs linked to human rights, the environment, and farmer income.

And in the marketplace, we are engaging with consumers by building on our [#HereToBeHeard global listening study](#). We launched a series of conversations, bringing together individuals to share their experiences and suggestions to help create meaningful change.

[#HereToBeHeard Conversations: Leadership | Mars, Incorporated](#)

[#HereToBeHeard Conversations: Parenthood | Mars, Incorporated](#)



Power of Partnerships



Vanilla Partnerships

L3F are impact investment funds created by Mars, Danone, Firmenich, and Veolia to fight climate change by safeguarding the livelihoods of the people who grow the food the world depends on. Through this collaboration, we are investing in large-scale projects that empower smallholder farmers and rural communities, restore ecosystems, contribute to climate action, and create value across agricultural supply chains.

In Ghana, we initiated a pilot in late 2022, aiming to explore and tackle the social, economic, and environmental challenges experienced by cocoa smallholders. The primary objective of this project is to determine the key factors that can effectively assist cocoa smallholder farmers in revitalizing their farms and enhancing their income in a sustainable manner.

[Our vanilla program](#) is focused in Madagascar, where 80% of global vanilla is produced. Vanilla farmers are trapped in a cycle of poverty: they lack efficient practices to grow high-quality vanilla and they don't have the time or resources to sell cured vanilla. As a result, farmers get a low price for poor quality products.

The Livelihoods-Vanilla project is addressing this issue by training farmers on sustainable practices to increase productivity and quality, creating farmer-owned cooperatives, promoting conservation and biodiversity, and identifying alternative economic opportunities. Launched in 2017, **this project aims to reach 3,000 farmers and greatly improve income within 10 years.** As of 2022, we've made significant progress and have reached 2,700 farmers on key interventions to improve their incomes.

- We're training farmers – both men and women - on better agricultural practices
- We're supporting women in leadership – with almost one-third of leadership seats in farmers associations now held by women
- We're also supporting farmer-owned cooperatives with both growing and curing
- Together with our partners, we have a long-term, ten-year commitment to buy the vanilla from these farmers which provides stability and predictability that is important.

As a result, yields have risen by an average of 50%, production capacity has increased, and the vanilla crop is better quality. Because of the project, 100% of **the value of the cured vanilla now goes back to the farmers and the community.**

Rice Partnerships

Through a partnership with the [International Finance Cooperation \(IFC\)](#), we have supported 21 agricultural cooperatives with 1250 farmers in Cambodia. The partnership enabled farmers to expand their land and improve efficiency, as well as assisting farmers in cultivating additional varieties of rice which meet market quality and quantity requirements. This approach not only supports farmers, but also empowers them to make informed decisions about the future of their business.

In our Thai rice supply chain, Mars Food & Nutrition has funded the Sustainable Agriculture and Rice Initiative (SARI) program since 2018, implemented by the German development organization GIZ. Through this program, 1450 farmers have been taught sustainable rice production techniques aligned with the SRP (Sustainable Rice Platform) standard. The program emphasizes climate-smart practices that enhance efficiency in fertilizer and water usage, discourages straw burning, promotes organic fertilizer utilization, advises on land preparation and leveling, and encourages farmers to maintain a comprehensive record book to track expenses and income.

The implementation of these practices has allowed farmers to increase their yields, which have led to higher income, and an opportunity for more investments into their businesses. According to the SARI project results, increased income is not the only result. In general, farmers in the project have been able to achieve 30% of water reduction in rice farming and nearly 16% of yield increases. More than 70% of the rice farmers in the program are women.

Nourishing Wellbeing Deep Dive

Responsible Marketing

Marketing determines how our brands and products show up in the world. Our Mars Marketing Code is one of the most ambitious in the food industry. In 2022, we made huge strides toward achieving gender parity in our marketing materials.

[Read More on Page 24](#)

Caring for People and Pets

We created AI-driven methods to quickly and accurately grade cancer and predict kidney disease risk. Mars Veterinary Health is investing in programs that enhance veterinary professionals' health and wellbeing.

[Read More on Page 25](#)

Ensuring Food Safety

A focus on food safety is critical to protecting people, pets & the planet. We believe if food isn't safe for consumption, it's not food. We're developing solutions and making science and technology advances to ensure all our food is safe.

[Read More on Page 26](#)

Providing Healthy Food

We're passionate about making our products as healthy as they are tasty. We use the strict World Health Organization (WHO) guidelines for calories, added sugar, sodium and fats as set out in our Mars Food & Nutrition Criteria.

[Read More on Page 27](#)

Striving for Gender Parity



In 2018, Mars partnered with the Geena Davis Institute (GDI) on Gender in the Media. This ongoing partnership has generated reporting to help us measure representation and address bias in our marketing.

Since then, we have made positive progress in increasing representation— specifically with female characters in our advertising, who made up 45% of characters in 2022. This is an increase of 11% points since Mars first started auditing gender representation in 2018.

[The report](#) also shows:

- **Mars advertisements in 2021 showed no gender differences for portrayals of work.** This is a significant improvement compared to 2018, when men were nearly twice as likely as women to be shown working and more male than female characters were depicted with an occupation (26% vs 11%, respectively).
- **Female characters are now as likely as male characters to be depicted in leadership positions.** In 2018, 22% of male characters were shown as leaders, compared with 17% of female characters.
- **Female characters have the same amount of screen time as male characters,** though there remains progress to be made on speaking time, with female characters accounting for 43%

of speaking time.

- **At a brand level, we had notable year-on-year improvements in the presence of female characters in SNICKERS®, WHISKAS®, TWIX® and M&M'S® ads.** Ben's Original® also improved parity of its marketing, showing more male characters in cooking and homemaking roles.

Marketing Responsibly

Marketing is a powerful tool that can drive positive behavior and conversations about issues that matter. It's critical to put guardrails around marketing practices to protect vulnerable audiences and to ensure that marketing is honest, accountable and trustworthy.

That's why our [Mars Marketing Code \(MMC\)](#) is one of the most ambitious in the food industry. We believe that with a strong commitment to responsible marketing, we're driving positive change. **Mars is considered to be the industry leader in our governance and reporting.** Good governance is about delivering accurate and consistent measurement of performance and doing so in a transparent manner.

We are proud to report a **99.5% placement commitment** and a **99.3% overall content commitment result**, based on 2021 audit data. This surpasses our compliance goals.

Our approach focuses on:

1. Protecting children as a vulnerable audience
2. Using the power of marketing for good, and
3. Being responsive to consumer expectation

In service of these priorities, our placement commitments include:

- No marketing targeted to children under 13 years, regardless of the nutritional profile of a product, and using a 25% audience threshold
- No marketing, vending or sports sponsorships in primary schools
- No data collection for children under 16 years old

We also have firm content commitments applicable to all forms of marketing (including packaging and in-store marketing) which include:

- Encouraging healthy lifestyles and responsible consumption
- No child-appealing promotions, influencers, licensed characters, advergames, or purchasing incentives, and strict governance of our brand characters
- Following our advertising guidelines for positive behaviors

Mars aims to create a safe media experience for people when they interact with our brands. Therefore, **Mars is one of the founding partners of the Global Alliance for Responsible Media (GARM)**, a cross-industry initiative that brings together advertisers, media agencies, media platforms, ad tech companies, and industry groups to remove harmful content from ad-supported digital and social media. Mars has taken a leadership role within the Alliance to establish shared universal safety standards and metrics, create common brand safety tools across the industry, and drive mutual accountability and independent verification.

You can learn more about GARM's achievements in its three-year progress report here: [GARM: 3 Years of Progress - World Federation of Advertisers](#).

Caring for People & Pets



The MARS PETCARE BIOBANK™

We are on a mission to improve the lives of pets through science, all in support of our Purpose: A BETTER WORLD FOR PETS™.

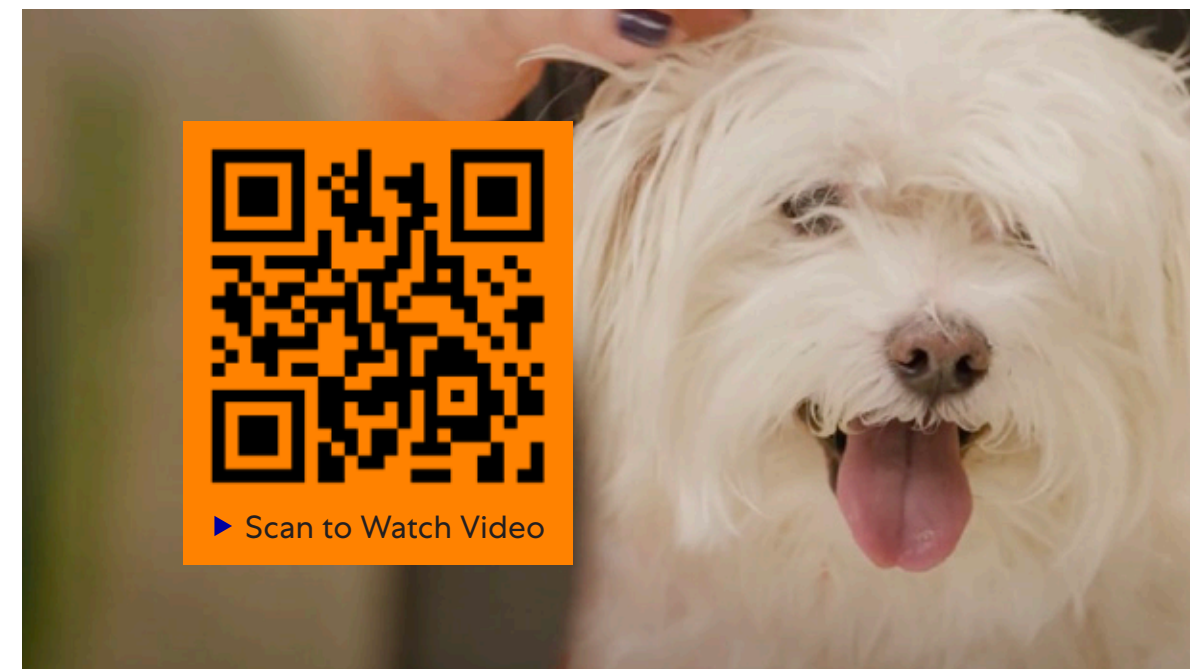
The [MARS PETCARE BIOBANK™](#) aims to be the largest, most comprehensive real-world study of its kind. We are aiming to recruit 20,000 pets (10,000 dogs and 10,000 cats) over 10 years. During this time, we will study biological samples, pet health, and genetic and behavior data to help us identify early signs of potential disease. We will use this data to uncover new ways to support healthy development and aging, disease prediction and prevention, individualized nutrition, and health monitoring. By enrolling their pets in the study, pet owners can help enable new scientific discoveries to improve pet health for generations to come.

What sets the MARS PETCARE BIOBANK™ apart from other pet biobanks is that we welcome dogs and cats of all breeds and breed makeups. Existing pet biobanks often study only certain breeds or diseases, which is why our study has the potential to transform pet care for all dogs and cats in the future.

AI-Driven Testing

One in four dogs and one in five cats will develop cancer during their lifetime, so moving quickly from diagnosis to the best treatment plan is critical. Our Antech™ team receives around 700 biopsies for diagnosis every day, and manually counting mitotic figures—a measure of how fast cancer cells are dividing—is time consuming and open to subjectivity. By leveraging [PyTorch](#), an open source machine learning framework, the Next Generation Technologies team built a groundbreaking algorithm that identifies mitotic figures enabling more efficient and reliable cancer grading in pets. This saves pathologists' time so they can focus on the right treatment for pets.

In collaboration with Process Integration and Predictive Analytics (PIPA) and the Royal Veterinary College, [our Antech Diagnostics colleagues developed an AI-driven diagnostic test](#) that can accurately predict a cat's chances of developing Chronic Kidney Disease (CKD) up to two years before any clinical signs. So far, more than 200,000 cats have been found to be at risk of developing this condition. CKD is also common in dogs. Because they live shorter lives than cats with CKD, early detection is vital. In partnership with PIPA, our scientists and veterinary teams built **a computer algorithm that can predict with 99% accuracy which dogs would not go on to develop CKD in the next 3.5 years.**



Supporting Vulnerable Pets

We continue to work to address pet homelessness issues around the world, with a wide range of programs, including responsible pet owner and breeder education, expanded access to veterinary care, shelter support, branded partnerships and donations. Through working with partners and our Foundations we supported 3,834,170 vulnerable pets in 2022 through feeding programs, adoption, access to essential care and other critical interventions. This included providing free or low cost preventative care to 1.4 million pets in need across the U.S. and Puerto Rico, including wellness checks, flea and tick preventatives, spay and neutering, and essential vaccines.

Supporting Our Veterinary Health Associates

Throughout 2022, Mars Veterinary Health focused on supporting all aspects of Associates' health and wellbeing, with an emphasis on mental health. We not only offered resources like MVH4You.com and our [ASK Suicide Prevention training](#)—completed by more than 20,000 people to date and available to all Mars Associates and the entire veterinary profession for free—but also expanded our network of in-house health and wellbeing professionals, including social workers. Further, Mars Veterinary Health invested more than \$6 million during 2022 to enable and enhance Associate benefits and programs, including personalized mental health solutions like Spring Health and Lyra; Associate Assistance through Beacon; and meditation services like Headspace.



Ensuring Food Safety



Food safety is of paramount importance at Mars. As a global food manufacturer, we believe we have a responsibility to act. First, to ensure that the food we produce is safe and high quality to help protect people, pets, and the planet. Second, to raise the bar in food safety by identifying and tackling risks that impact society at large.

An example of our unique approach is the Mars Global Food Safety Center (GFSC)—a world-leading research and training hub, opened in 2015 and dedicated to multi-sector, multi-disciplinary collaboration and capability building in food safety. At the GFSC, we are currently focused on three critical areas of food safety:

1. Microbial Risk Management

We are investigating innovative technologies and methodologies with the potential to transform the management of microbial risk from a reactive to predictive (and ultimately preventative) approach. This can include next generation sequencing, whole genome sequencing and metagenomics.

2. Mycotoxin Risk Management

We work with strategic partners to generate knowledge and new insights and develop practical solutions that can help predict and tackle mycotoxins. We help build mycotoxin

risk management capability through training to support mycotoxin risk mitigation at vulnerable points along the food supply chain.

3. Food Integrity

We investigate cutting-edge tools, methods and capabilities to help mitigate food integrity challenges across the global food supply chain, helping to protect raw food materials and finished products.

The Mars Advanced Research Virtual Environment Lab

Since 2015, MARI and the University of Tennessee's National Institute for Computational Sciences (NICS) have worked together to advance our capabilities in computational modeling, bioinformatics and artificial intelligence. A key product of this collaboration is the creation of the Mars Advanced Research Virtual Environment Lab (MARVEL).

MARVEL provides Mars with the computational infrastructure required to carry out next-generation data analytics processes and gives us access to scientists with expertise in computational methods. All this knowledge and data translates into a better understanding of the science behind Mars products and services. A better understanding leads to insights. Insights lead to innovations in service of our consumers.



For example, Mars is using MARVEL in the food safety arena. Aflatoxins are a poisonous but little-known natural product made by certain fungi. Specialists from the University of Cambridge and Mars Digital Technologies are using MARVEL to predict the likelihood of aflatoxin in maize by analyzing data on things such as humidity levels, temperature and rainfall—all of which affect whether aflatoxins can grow. By having access to this data, Mars can make informed predictions about aflatoxin contamination, ensuring that the raw materials that we buy are safe for everyone.

Lindau Nobel Laureate Meetings

Nowhere is our support of scientific collaboration more evident than our involvement at the annual Lindau Nobel Laureate Meetings. Each year, this unique scientific forum brings together Nobel Laureates and more than 500 of the top young researchers from all over the world to Germany.

At the 71st Lindau Nobel Laureate meeting, Mars hosted discussions with Nobel Prize winners, including topics such as using chemistry, physics and medicine to unlock meaningful insights in health and nutrition and opportunities for scientific collaboration. These timely conversations outlined the opportunities and challenges in nutrition research and spotlight the multidisciplinary collaboration needed to elevate the field.

Providing Healthy Food



At Mars Food & Nutrition, we are dedicated to delivering on our purpose: Better Food Today. A Better World Tomorrow.

We believe a better world tomorrow is one where more people have access to healthy meals; more people cook and sit down together to enjoy shared dinner times; and more food can be produced with less environmental impact. We're focused on building an innovative, purpose-driven business of tomorrow, enabling delicious, healthier eating to be part of consumers' daily lives and making choices that help us achieve near-term results without compromising on the world we want tomorrow.

We are incredibly proud that Mars Food & Nutrition delivered more than 4.7 billion healthy meals in 2022—and more than 9 billion healthy meals since 2021. This progress was driven by a combination of reformulation, optimization of the portfolio and product innovation in line with the Mars Food Nutrition Criteria (MFNC).

This includes:

- 1.7 billion servings of vegetables
- 32% increase in fiber servings, and
- 33 million meals to food bank partners across the globe

We've also reduced sodium across our portfolio by 3.3%, making strong progress towards our 2025 commitment of reducing by 5%.

In line with World Health Organization (WHO) guidance, Mars, Incorporated's commitment to help limit intake of added sugars to less than 10% of total calorie intake, builds on the steps we have taken over time to help consumers achieve their nutritional goals.

With the ongoing challenges of food insecurity, we continue to work with our food bank partners around the world. We made a global commitment to donate 25 million meals to ensure that underserved communities around the world have access to nutritious meals. We have already exceeded this commitment and have donated more than 33 million globally, and are continuing to build strategic partnerships with local organizations to help us get food to people who need it the most.

But we don't just provide healthy food. We're also researching ways that food and its specific components, including bioactive compounds can improve health through rigorous scientific research.

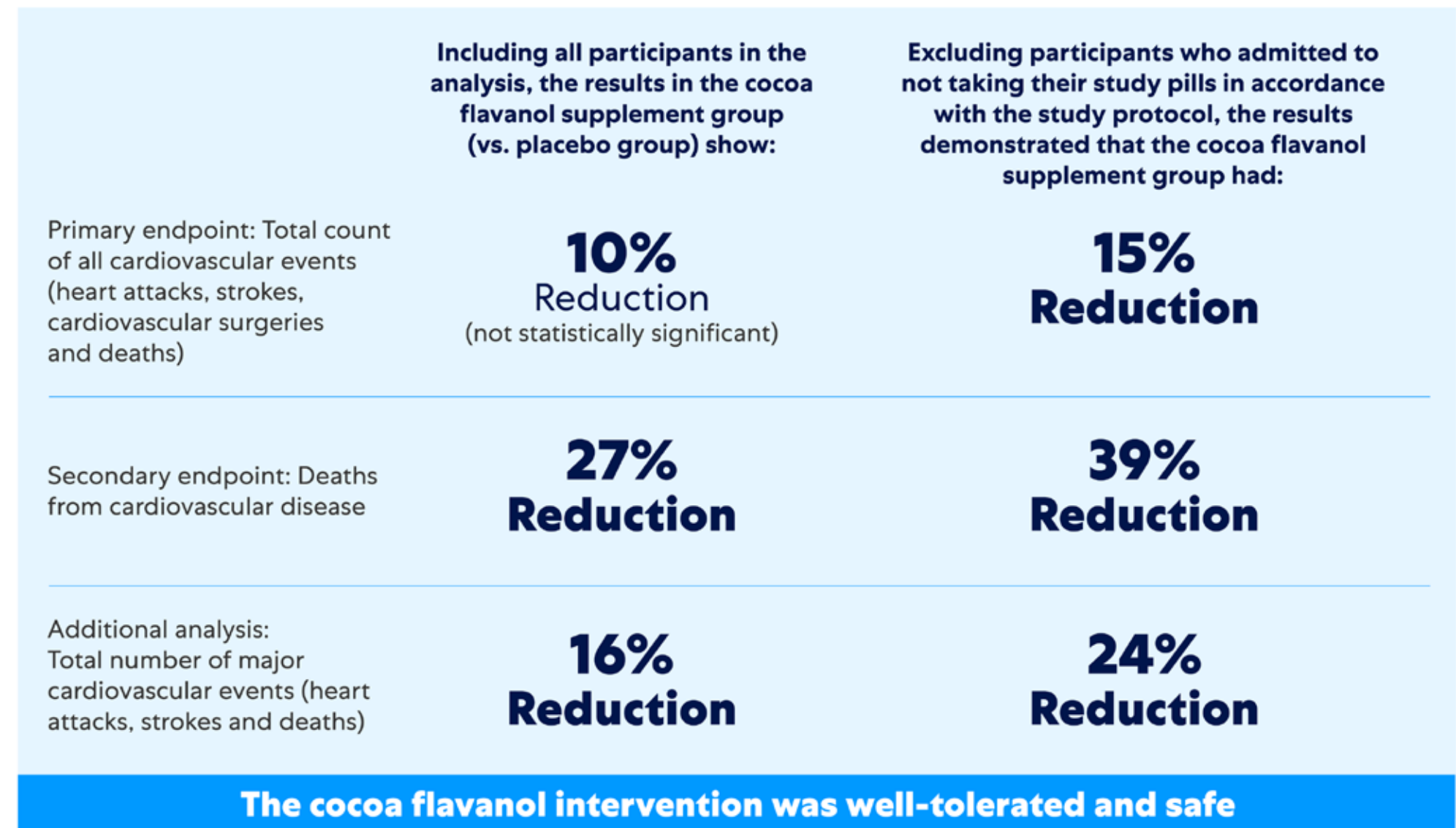
Mars is rigorously investigating the long-term effects of cocoa flavanol intake on cardiovascular disease risk and cardiovascular death at a scale and duration that has never before been attempted. To do so, our researchers designed and undertook the **CO**cocoa **S**upplement and **M**ultivitamin **O**utcomes **S**tudy (**COSMOS**), a randomized, double-blind, placebo-controlled trial of more than 21,000 men and women over 5 years. It has become the largest clinical dietary intervention trial investigating the impact of flavanols on health.

The results showed that the **participants in the cocoa flavanol supplement group had a 39% reduction in cardiovascular deaths and a 15% reduction in total cardiovascular events.**

The first results from COSMOS have been published in [The American Journal of Clinical Nutrition](#). We're excited by the promise shown for flavanols in reducing cardiovascular disease risk, a major health challenge globally.

COSMOS Shows Promise of Cocoa Flavanols for Reducing Cardiovascular Risk

COSMOS is the first large-scale trial to test cardiovascular benefits of cocoa flavanols



COSMOS: A rigorous landmark study

21,000+ healthy men & women aged 60+ up to **five years**

Randomized, double-blind, placebo-controlled study

Independently planned and led by researchers at Brigham and Women's Hospital, an affiliate of Harvard Medical School

COSMOS was supported by **Mars Edge**, a segment of Mars dedicated to nutrition research and products, **Pfizer Consumer Healthcare** (now part of GSK Consumer Healthcare) and the **National Institutes of Health (NIH)**.

Transforming Packaging Deep Dive

Eliminating Unnecessary Packaging

Our highest priority is to eliminate all problematic and unnecessary packaging materials from our portfolio, to help prevent any of our packaging from contaminating the recycling stream, and to reduce our use of virgin plastic by 25%.

[Read More on Page 29](#)

Embracing Paper Packaging

We're transitioning part of our portfolio to paper. Recyclable paper-based wrappers for MARS®, SNICKERS® and MILKY WAY® are now available across Australia and New Zealand, removing over 360 tons of plastic from our value chain.

[Read More on Page 30](#)

Developing Reusable Options

We're exploring innovative reuse models that eliminate waste altogether, with a goal to launch at least 10 new programs that test reusable packaging in markets. We're already well underway with nine programs deployed so far.

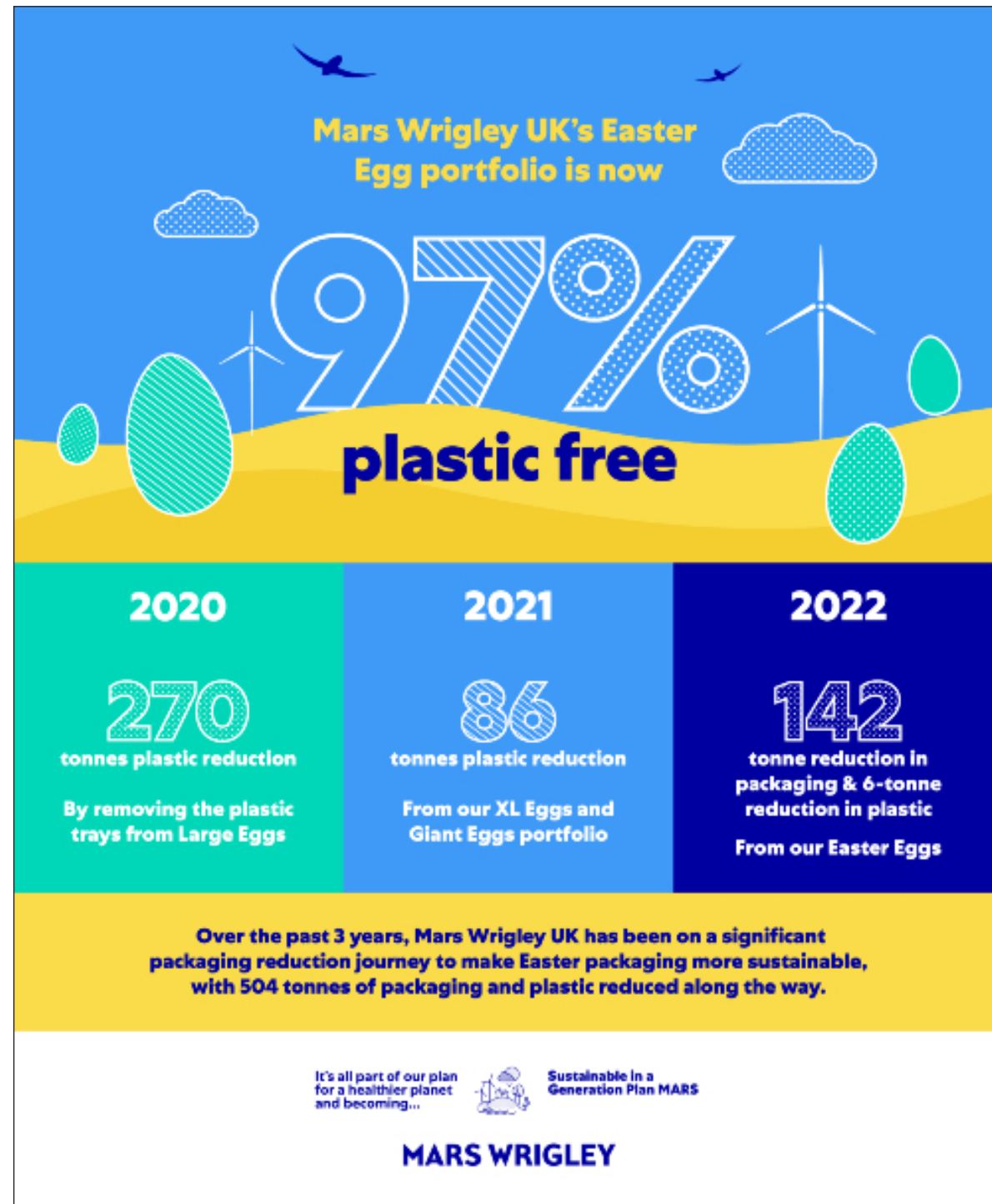
[Read More on Page 31](#)

Investing in Recycling

We're redesigning more than 12,000 packaging types to be recyclable where infrastructure exists. We're incorporating 30% recycled content, to create demand for recycled materials & to encourage investment into global recycling systems.

[Read More on Page 32](#)

Eliminating Unnecessary Packaging



Where possible we aim to remove material such as plastic from our packaging without replacing it with another packaging material such as paper. This can be achieved in several ways, such as through “light-weighting,” where we strip away material from the package, making it thinner and lighter. We are also exploring new materials that can replace the use of some plastics.

2022 Success Stories

Mars Snacking China eliminated 450 tons of virgin plastic through their EXTRA® Light Weighting Project, plus a further 580 tons of plastic by decreasing materials in the DOVE® canister and DOVE® 43g bars.

Throughout 2022, Mars Pet Nutrition brands in Europe transformed the SHEBA® and PERFECT FIT™ Mini Pouches, replacing plastic flow-wraps with high performing and widely recyclable paper sleeves. Across select markets in Europe, WHISKAS® dry food plastic bags have been replaced with carton boxes. And in France, CATSAN® cat litter brand has removed unnecessary layers of plastic in its secondary packaging. Together these initiatives contributed to saving a total of **480 tons of plastic, equal to the weight of 1.6 million dog food bags.**

In North America, we are scaling deployment of single material packaging designed for advanced recycling systems available in some countries for large bags of PEDIGREE®, NUTRO® and IAMS® dry pet food—a change impacting over **74 million bags per year.** The new material is also more efficient, resulting in a significant packaging reduction across the portfolio. We are advocating for the expansion of advanced recycling so that these packs can be recycled in more markets in the future.

Now select “Standard” and “More to Share” sharing pouches of some of Mars Snacking U.K.’s favorites—including M&M’S®, GALAXY®, COUNTERS®, MINTSTRELS®, REVELS®, MALTESERS®, BUTTONS®, SKITTLES® and STARBURST®—are narrower in the U.K. and Ireland. This will **reduce plastic used by 45 tons, equivalent to around 647,000 square yards a year, an area of over 90 football fields.** The new packs will have an average of 10% plastic reduction per pack compared to the current 2020 range. This also means that we can fit more packs into the boxes we ship, increasing our efficiency and taking the **equivalent of 90 truckloads of boxes off the road each year.**

Mars Snacking U.K. has also made a 142-ton reduction in plastic packaging across its Easter Eggs for 2022, meaning that **97% of our Easter Egg portfolio in the U.K. is now plastic-free.** Over the past few years, we’ve been on a significant packaging reduction journey to make Easter packaging more sustainable. In 2020, we removed the plastic

trays from large eggs, accounting for a **270-ton plastic reduction**, a significant amount of the seasonal range’s plastic output. This was followed by 86 tons of plastic removed from the XL Eggs and Giant Eggs portfolio in 2021—resulting in a total of **504 tons of packaging and plastic reduced over the past three years.**



Embracing Paper Packaging

We've made the [switch to paper packaging](#) for our chocolate bars in Australia. **Recyclable paper-based wrappers for MARS®, SNICKERS® and MILKY WAY® products are now available across Australia.**

Our ongoing investment in extensive R&D trials and locally driven innovation has allowed us to be agile and create solutions that have a positive impact on our environment, meet our stringent quality and food safety standards, and remain convenient for our consumers to recycle via curbside recycling.

From April 2023, MARS BAR®, SNICKERS® and MILKY WAY® bars in Australia will be packaged in recyclable paper-based wrappers. This switch is expected to **eliminate more than 360 tons of plastic from our value chain**, enough to stretch from Melbourne to London and back.

The project was launched to show how well paper performs as a material in production and assembly in the factory, during transport and on the shelf. The lessons learned are now being fed into new packaging designs for the Mars chocolate bar portfolio.

This launch marks a significant milestone in just one of the many projects bringing Mars closer to our goal to make all of our packaging reusable, recyclable and compostable and to reduce our use of virgin plastic by 25%.



Developing Reusable and Refillable Packaging



Another way to eliminate unnecessary packaging waste is to make a package reusable, meaning you can hold onto the pack and refill it as many times as you choose, or return it so that it can be washed, resealed and purchased again.

In collaboration with BESTORE, the leading brand in China's snack industry, our **reusable M&M'S® packaging had a 24% refill rate across 17 outlets in five cities.** We estimate the refills will save about seven tons of plastic every year.

Also in China, we launched refillable TaTa® bubblegum and Pimpom® lollipops packaging at participating storefronts. These reusable solutions are also helping our retail partners reach their own eco-friendly goals.

In France, Mars Snacking launched [their first-ever bulk delivery system](#) with supermarket giant Carrefour. A sweet bonus: our bulk dispensers are in the confectionery aisle, right alongside traditional packaged treats, letting shoppers mix and match their favorite M&M'S® colors, just like in boutiques and our M&M'S® World stores. By 2030, all Carrefour stores larger than 400 square meters will dedicate 20% of their space to bulk sales, which is a great example of why we're participating with early test-and-learns like these as part of our packaging redesign strategy.

Our pet nutrition brands also partnered with Carrefour to test bulk sales as part of a broader industry collaboration strategy within the scope of France's National Pact on Plastic Packaging, where stakeholders are jointly working on innovative solutions to drive a circular economy. In 2022, we began offering PERFECT FIT™ dry cat food, CATISFACTIONS™, and WHISKAS® Care & Treats in bulk at Carrefour's Montesson hypermarket in France. Consumers are provided with reusable or single-use containers for consecutive pet food refills, with easy access to product information via the help of QR codes available on refill dispensers. In addition to enabling reduced packaging waste, bulk sales provide additional benefits to shoppers, including the opportunity to purchase the exact quantity needed.

Also on packaging reuse, in 2022, ROYAL CANIN® established a partnership with RePack to pilot a sustainable solution for home deliveries. Through this collaboration, pet owners can receive their ROYAL CANIN® Individualis™ order in a returnable RePack delivery packaging. Once empty, the **packaging can be circled back through the postal system for free to be cleaned and reused up to 20 times.**



Innovating with Recyclable Packaging & Incorporating Recycled Content



As part of our commitment to a circular economy and to ensure that our packaging can be transformed into recycled content, we are redesigning much of our portfolio to be recyclable where recycling infrastructure exists. We're then purchasing recycled material and incorporating it back into some of our packaging, thereby closing the loop.

Improving the Recyclability of Our Packaging

Mars Snacking France released the first-ever [mono-material M&M'S® Choco pouch](#), made of only one type of plastic resin (polyethylene), which is designed to be recyclable where advanced recycling facilities exist.

In October, we worked with leading digital waste and recycling solutions provider [Rubicon Technologies, Inc.](#) to offer specially designed recyclable trick-or-treating bags as an expansion of Rubicon's existing Trick or Trash™ campaign. The collaboration gave Halloween lovers a simple, fun and free way to tackle wrapper waste by providing trick-or-treat

bags with a prepaid postage stamp and simple three-step instructions on how to return it for proper recycling. Once returned, each individual bag and the wrappers placed inside are fully recycled for future use. With 600 million pounds of candy purchased in the United States each season, that's a lot of wrappers to recycle!



Incorporating Recycled Content

In a recent collaboration with packaging supplier Berry Global, we launched new club jars for M&M'S®, STARBURST® and SKITTLES®. The new jars **contain 15% recycled plastic, replacing about 300 tons of virgin plastic per year.**

The easy-grip square jars are produced at Berry's manufacturing facility, using a single-pellet, food-grade resin to ensure a clean, consistent packaging material sourced from mechanical recycling. In addition to including recycled materials, the jar itself is also widely recyclable in the United States.

Available in three sizes, the new jars offer the same look and feel as previous jars. The two larger sizes are 10 grams lighter per jar, **saving 374 metric tons of carbon dioxide (CO2) every year**, which is equivalent to:

- 42,084 gallons of gasoline consumed
- 45,494,350 smartphones charged
- 72.8 homes' electricity use for one year

Mars and Berry Global are now putting PCR into plastic containers used for M&M'S®, SKITTLES® and STARBURST®. In 2022, we launched 15% PCR in our large-format jars and have lightened the packaging as well. The bars are produced from a single-pellet, food-grade RPET derived from mechanical recycling technologies. Available in three sizes, the jars will **eliminate about 300 tons of virgin plastic per year.**

Mars Petcare has launched a new pouch for its SHEBA® wet cat food that incorporates, on average, **30% recycled polypropylene** from advanced recycling technology. The first such structure for wet pet food, the SHEBA® pouch is not only food safe, but can also withstand the retort process where the product is sterilized at a high temperature. The pouch is made through an advanced recycling process where mixed plastic waste is recycled through pyrolysis into an oil that can be used as the feedstock to produce a range of plastics with the same characteristics and functionality as virgin plastic.

The Chinese branch of Mars Snacking has launched its [first package made entirely from post-consumer recycled PET \(rPET\)](#) for local chocolate brand Cui Xiang Mi (CXM). The new packaging **will save 36 tons of virgin plastic each year.** After launching the packaging for CXM, Mars Snacking China plans to provide the rPET lid for brands such as SNICKERS® and M&M'S® in 2023. Through this, we'll **save an additional 300 tons of virgin plastics in a year.**

Also for the first time, packaging for KIND® snack bars in the U.K. and Ireland will incorporate recycled content made from advanced recycling. The new KIND® snack bar packaging incorporates recycled content made from advanced recycling, meaning it contains less virgin plastic to previous products.

We've partnered with Olyns, a San Jose, California-based startup that offers reverse vending machine technologies to launch the Sweet Rewards Challenge as a way to encourage consumers to recycle rigid plastic candy containers. Through the challenge, consumers in Northern California can recycle rigid plastic candy and gum containers to participating Olyns reverse vending machines (RVM) in the San Francisco Bay Area. Consumers can deposit their hard plastic candy and gum containers to Olyns Cubes at participating locations and play a game to earn badges and win up to \$100.



A man wearing a red baseball cap, a blue and white plaid long-sleeved shirt, and khaki pants is walking away from the camera through a field of young green plants. The field is organized into neat rows, with a dirt path running alongside them. In the background, there are rolling hills, a white house, and a fence. The lighting suggests it's either early morning or late afternoon, with long shadows and warm tones.

MARS

**The world we want tomorrow starts
with how we do business today.**