



DOWFRIENDS

Newsletter

DowFriends January News

A New Year, A New DowFriends

On behalf of Team Dow, we hope your 2022 is off to a most wonderful start! With the beginning of a new year comes the desire to offer a fresh outlook, and we are excited to announce that we will be sending you more frequent newsletters to keep you up to date with the latest Dow news and information. Check out our stories below to see how our people and their ambition fuel research, sustainability, inclusion, diversity and equity to help change the world.

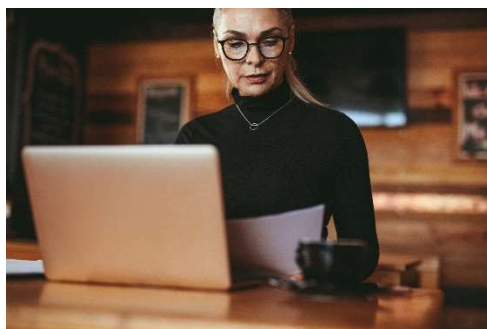


"We measure our success not only by the results we achieve, but how we achieve them. Designing a company governance structure to advance accountability and integrity ensures that doing the right thing stays at the front and center of our decision-making."

Amy Wilson
General Counsel and Corporate Secretary

[Learn more](#)

Go paperless by enrolling in electronic delivery for stockholder materials.



Help us on our journey to become the most innovative, customer-centric, inclusive and sustainable materials science company in the world by signing up for electronic delivery of stockholder materials today.

When you sign up for electronic delivery, you'll be able to view your stockholder materials online, including the proxy statement, annual report and related materials.

Going paperless is not only convenient for stockholders, but it also saves resources and reduces our impact on the environment.

Signing up for electronic delivery is easy. Have your tax ID number and email ready and visit <https://enroll.icsdelivery.com/dow>.

For more information please visit, www.investors.dow.com.

Plans underway for 2022 Dow GLBI and Eat Great Winter.

Tournament officials are gearing up for another exciting year at the Dow Great Lakes Bay Invitational. Scheduled for July 10 – 16, 2022, the 72-hole, stroke-play tournament will feature 72 two-player teams competing in both foursomes and four-ball with a \$2.5 million purse at Midland Country Club. As one of the premier events on the LPGA Tour, the Dow GLBI is continuing to identify ways the tournament can continue to evolve in the years ahead.



In November of 2021, the Dow Great Lakes Bay Invitational (Dow GLBI) announced that the LPGA team event will increase the tournament purse to \$2.5 million in 2022. The raise amounts to nearly 10 percent more than the 2021 Dow GLBI purse. The Dow GLBI will award the winning team with \$607,620 (\$303,810 for each champion). The Dow GLBI continues to be one of the highest paying tournaments on the LPGA Tour outside of the majors.

"This purse increase truly represents Dow's commitment to driving inclusion, diversity, and equity as an organization and proud supporter of the LPGA," said Dow GLBI Executive Director Chris Chandler. "It's remarkable what we've been able to accomplish in the two short years of this event, and we're looking forward to continuing to help advance the game of women's golf in the years ahead."

While the LPGA tournament is at the heart of the week-long event, the Dow GLBI features several programs including the First Tee Junior Clinic, the Special Olympics 3-Hole Challenge, free access for Veterans, and leadership programming focused on inclusion, diversity, equity, and sustainability. The Dow GLBI also continued a variety of charity initiatives benefiting nonprofits in the Great Lakes Bay Region. More than \$1 million in charitable giving has been awarded since the tournament's inception in 2019.



year.

Coming in February, Eat Great Winter is back in the Great Lakes Bay Region. Hosted in Wenonah Park, Bay City, during the evenings of February 27, 28 and March 1, twenty-two glowing igloos will illuminate the riverside. The Eat Great brand was created to help enrich Great Lakes Bay Region restaurants and other culinary brands by building community, highlighting local talent, and providing a platform for local purveyors, restauranters, and chefs to tell their stories and grow their initiatives. Eat Great works alongside restaurants from around the region to offer unique food-centric events throughout the

As always, we are looking for some help from the community to make this event possible. If you're interested in volunteering and bringing this event to life, please visit www.eatgreatfoodfestival.com to view a list of committee descriptions and volunteer opportunities. All are welcome and appreciated.

For more information on the Dow Great Lakes Bay Invitational, visit www.DowGLBI.com and join the social conversation at www.facebook.com/DowGLBI, www.twitter.com/DowGLBI, and www.instagram.com/dowglbi (@DowGLBI). You can also follow the Eat Great Food Festival at www.facebook.com/eatgreatfestival, www.instagram.com/eatgreatfestival (@EatGreatFestival) or online at www.EatGreatFoodFestival.com.

Dow launches LUXSENSE™ Silicone Synthetic Leather, providing innovative solutions for a new era of high-end sustainable materials.

Dow launched LUXSENSE™ Silicone Synthetic Leather, the world's first high-end silicone-based synthetic leather material to meet specifications in transportation seating and interiors, furniture, fashion, wearable devices and consumer electronics with unique features. With this innovation in material science, Dow introduces an alternative synthetic leather solution that offers comfort, health, and luxury, all while offering enhanced sustainability.



“Globally, concerns over environmental protection and animal welfare are rapidly reshaping the leather industry – especially in China, the world's largest leather market. Meanwhile, we saw that both general leather and the current synthetic alternatives could not meet the growing requirements for automotive and wearable electronic products when it came to weatherability, stain resistance, odor, and sustainability – so we developed LUXSENSE™ Brand to address these needs,” said Jeroen Bello, DOW Global Marketing Director, Mobility & Transportation. “As a global leader in silicone technology, Dow leveraged the unique molecular structure of silicone to match consumer demands for leather in terms of softness, moisture permeability, stability and environmental friendliness.”

Known for its soft touch and breathability, general leather offers premium texture and comfort. However, it also has some distinct disadvantages, including weak UV resistance, poor crack and anti-aging resistance, and fragility. Other kinds of synthetic leather, by contrast, are durable but with the problem of hazardous, irritating odor emissions, which come from complex chemical agents, posing a threat to human health.

With the increasing awareness of the needs for greater sustainability and animal welfare, manufacturers and consumers are demanding innovative solutions that can integrate the advantages of traditional leather in terms of sight, smell, touch, and sustainability. Leveraging these insights on consumer and market needs while relentlessly exploring innovative technology, Dow developed LUXSENSE™ Brand as a novel solution.

LUXSENSE™ Brand offers a luxurious sense of sight in terms of cleanliness, durability, color personalization and design freedom. It avoids DMF and plasticizer usage, providing enhanced sustainability, as well as superior UV resistance and hydrolysis resistance that effectively prevents leather aging. Meanwhile, high flame retardancy is coupled with self-extinguishable features, and no harmful gasses are released in the event of a fire, making it a safe option for use in confined spaces. LUXSENSE™ Brand adopts the innovative top coating technique to ensure fresh and non-tacky touch even in sultry and humid environments.

This combination of product benefits for both manufacturers and end-users means that LUXSENSE™ Brand is widely applicable in a broad range of sectors and scenarios, including transportation seating and interiors, furniture, fashion, smart wearable devices, consumer electronics, and other fields where there is a stringent demand for high-quality material selection.

The launch of LUXSENSE™ Brand supports Dow's companywide commitment to reduce its net annual carbon emissions by an additional 15 percent, reducing net annual carbon emissions by approximately 30 percent by 2030 and achieve carbon neutrality by 2050. Adhering to the concept of Seek Together, Dow is striving for a positive impact on society and the planet with innovative partners.

To learn more about LUXSENSE™ Brand, DOW's commitment to collaboration, and premium sustainable materials, visit [Artificial and Synthetic Materials | Dow Inc.](#)

Dow earns trio of BIG™ Innovation Award.



For the sixth consecutive year, Dow (NYSE: DOW) has been recognized by the Business Intelligence Group™ with multiple 2022 BIG Innovation Awards. This honor is awarded to organizations and people who bring new ideas, big or small, to life. Dow also received three [awards](#) from the same organization in 2021.

This year's winning products, all representing Dow's Consumer Solutions business, are:

DOWSIL™ TC-2035 CV Adhesive, a new high thermal conductivity product 3.3 W/mK with low temperature, fast cure, and outstanding room temperature shelf-life stability for automotive electronics assembly applications. This technology enables low carbon mobility and was designed to provide long term bonding and efficient thermal flow, especially where low bond line thickness is required to enhance thermal conductivity. With TC-2035's outstanding 12 months shelf-life at or <35°C, primer-less adhesion on selected substrates and low volatile content <100 ppm, the innovative adhesive can be used for automotive applications including Advanced Driver Assistance Systems (ADAS), ECU assembly, power electronics, converter/inverter and OBC.

[DOWSIL™ TC-6015 Thermally Conductive Encapsulant](#), developed to meet the demand across industries including renewable energy, energy storage, new energy vehicles and 5G stations for higher thermal conductivity materials. Its advantages such as exceptional thermal management with no filler sedimentation, primer-less self-adhesion, lower density, and long-term reliability provide sustainability in manufacturing and application. When compared to traditional 1.5 W/mK encapsulants, TC-6015 offers a lighter solution while maintaining good thermal conductivity, which achieves energy-saving accumulation, especially in Electric Vehicles. Its design also enables robust self-adhesion properties against many common substrates, which allows customers to eliminate the extra step of applying solvent-based primers on the entire module. TC-6015's self-priming properties help save time and costs while delivering benefits to the environment.

UCARE™ Extreme Polymer, Dow's versatile bio-derived (48% bio-based carbon content) and inherent primary biodegradable technology, according to OECD testing guidelines. The water-soluble polymer can be used as the principal conditioning agent in rinse-off conditioners, leave-on products and shampoos providing superior conditioning results. UCARE™

Extreme Polymer also has a cellulosic backbone, derived from non-GMO and Program for Endorsement of Forest Certification (PEFC) certified wood pulp. This innovative polymer is also used in combination with silicones to enhance deposition in shampoos and conditioners.

6th consecutive year company is recognized by Business Intelligence Group with multiple innovation awards.

"These awards speak to Team Dow's continued ability to collaborate and innovate to deliver solutions that benefit our stakeholders and our planet. It is truly satisfying to see the hard work of our teams recognized for delivering top innovative product technologies that enable sustainable growth across markets and a broad range of applications," said Jim Helwick, global director for research and development for Dow Consumer Solutions.

"I look forward to the continued success of our teams throughout the year by working closely with our customers and leveraging the materials science leadership of Dow," he added.

You can learn more about how Dow is innovating for a better world on Dow.com, or read more about the 2022 BIG™ Award winners across all categories [here](#).

Dow commercializes recyclable toothpaste packaging.



Dow (NYSE: DOW) announced today the ground-breaking commercialization of recyclable toothpaste tubes developed and manufactured in Asia Pacific and used by major consumer brands is now available on store shelves around the world. The Company worked closely with leading global toothpaste brands to bring the new sustainable solution into mass production. Coupled with responsible disposal and recycling infrastructure, this solution could help reduce the

number of used toothpaste tubes entering landfills.

Unrecyclable toothpaste tubes account for an estimated 100,000 tons of waste each year – roughly the weight of 10 Eiffel Towers. However, making the tubes recyclable was a technically challenging endeavor. Since toothpaste is sensitive to oxygen and humidity, toothpaste manufacturers traditionally use tubes made from a combination of different plastics as well as a layer of aluminum, making the packaging nearly impossible to recycle. Using high-performance polyethylene-based technology that meets the same stringent performance requirements as traditional multilayer tubes, Dow's new packaging solution solves the recyclability issue by removing the aluminum layer while protecting the integrity of toothpaste products. It also offers printability thereby enabling brand owners to design for shelf appeal.

"Dow has made a commitment that 100 percent of what we sell into packaging applications must be reusable or recyclable by 2035," said [Diego Donoso](#), president of Dow Packaging & Specialty

Plastics. "Recyclable toothpaste tubes represent another advancement in our commitment to drive circular economy solutions together with our customers around the world."

"We are excited to make recyclable toothpaste tubes a reality for the oral hygiene industry by addressing the application challenges with Dow's materials science expertise," said Bambang Candra, Asia Pacific commercial vice president, Dow Packaging & Specialty Plastics. "This new offering is part of a broader product portfolio of solutions that helps consumer brands reduce their environmental footprint and meet growing consumer demands for sustainability without compromising product performance."

Recent innovations lead to production-ready sustainable manufacturing breakthrough

In addition to toothpaste tubes, Dow has also launched several all-PE flexible packaging solutions, which have gained traction and adoption by leading Fast-Moving Consumer Goods (FMCG) brand partners. These developments are part of Dow's [efforts](#) to achieve its Close the Loop target for 100 percent of its packaging solutions to be recyclable or reusable by 2035 and its target for one million metric tons of plastic to be collected, reused or recycled through its direct actions and partnerships by 2030.

On store shelves today from leading global toothpaste brands

Dow continues to collaborate with customers and value chain partners across the plastics and packaging industries to find new ways to extract the full value of plastic and help reduce the overall environmental impact of packaging and plastics. Examples include accelerating [advanced recycling](#), advancing [bio-based renewable feedstocks](#), helping consumer brands design their packing to be [fully recyclable](#) while also extending shelf life, to finding new ways to give [hard-to-recycled plastics](#) a second life.

The Company also recently announced [several advancements](#) that will enable Dow to provide initial supply of fully circular polymers to customers starting in 2022.

Dow named one of America's Most JUST Companies for the third year by JUST Capital.

[Dow](#) announced today that for the third year it has been named to the JUST 100 list and this year has earned the top spot in the Chemicals sector overall as well as the number one position in the Workers and Stakeholders & Governance categories versus industry peers.

Published annually by JUST Capital, the [JUST 100](#) showcases companies doing right by all their stakeholders which includes employees, customers, communities, the environment, and shareholders.



This marks the second consecutive year Dow has earned the top spot in its industry in the Workers category, highlighting the Company's commitment to pay a fair and livable wage; invest in workforce training; protect worker safety; cultivate a diverse and inclusive workplace; and provide benefits and work-life balance.

"The issues that matter most to our colleagues and to all our stakeholders are the issues that matter most to Dow," said [Jim Fitterling](#), Dow chairman and CEO. "With the release of our first-ever integrated ESG report last year, we reiterated Dow's commitment to reporting transparency as well as sustainability disclosures. We also reaffirmed both our bias for action and our corporate accountability, through bold goals and measurable results. We are proud to be recognized as a JUST company. It serves as a proof point that our values and ambition are not just words on paper but how we are living as a company."

**Earns top spot in
Chemicals sector and
#1 ranking in both**

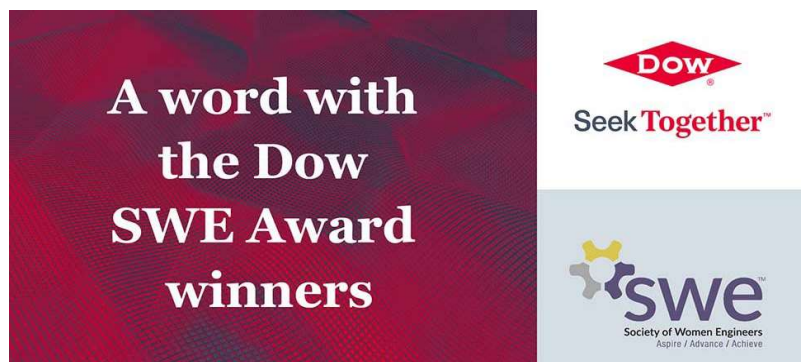
For its annual rankings, JUST collects and analyzes corporate data to evaluate the 1,000 largest public U.S. companies across 20 stakeholder-focused issues. The issues are identified through the most comprehensive ongoing public opinion research on Americans' attitudes toward responsible corporate behavior, engaging more than 150,000 participants since 2015.

Through vigorous, objective analysis, JUST Capital, in partnership with CNBC, evaluates and celebrates U.S. corporations that outperform on the issues that matter most to the American public – such as creating jobs in the U.S.; paying a fair, living wage; prioritizing accountability to all stakeholders; protecting worker health and safety; providing benefits and work-life balance; cultivating a diverse and inclusive workplace; producing sustainable products; and protecting customer privacy.

"We've entered a new era of accountability where employees, customers, and investors want to understand if companies are not just walking the talk, but walking the walk to drive change on the critical issues of our time," said Martin Whittaker, CEO of JUST Capital. "The companies featured in the 2022 JUST 100 are demonstrating that purpose and profits can go hand in hand by delivering value to all stakeholders, including shareholders."

SWE award recipients talk about women and STEM.

The Society of Women Engineers (SWE) awards are a prestigious recognition for individuals making significant contributions to the advancement of women in engineering and the STEM industries (Science, Technology, Engineering and Math). SWE Individual Awards seek to recognize individuals and groups who support the core values of the Society: Integrity, Inclusive Environment, Mutual Support, Professional Excellence and Trust.



This year, **five Dow women received individual SWE awards**. I sat down with them and asked them to weigh in on the advancement of women in STEM.



Global Leadership Award

Sarah Eckersley, Ph.D.
Global R&D Director - Coating Materials, Monomers and Plastics Additives

Q: You've received very prestigious awards and many other awards throughout the year recognizing your advanced professional experience in engineering and technology. How do you find inspiration to continue to be innovative in this field?

A: "Early in my career I realized that the commercialization of innovation was very motivating to me. Successful commercialization means alignment to strategy and what is happening in the market, coupled with deep and seamless collaboration with other functions. Innovation and technology remain critical to Dow's success today, and this is amplified by our sustainability objectives. So, I am inspired and motivated because there are always interesting and challenging new problems and frontiers. This is what makes me tick."

Advocating for Women in Engineering Award

Tracy Young
Global R&D Director for Construction Chemicals

Q: With inclusivity being one of the core values of the Society of Women Engineers, how do we continue to foster an inclusive environment for women within the STEM field?

A: "As a Global R&D Director, I'm proud of the programs sponsored by the Industrial Intermediates and Infrastructure Division Leadership Team to advance diversity metrics and programs which have been adopted across our company. Dow has implemented metrics that foster a diverse workforce, realizing an increase from 26% to 29% in the employment of women. To continue to lead in diversity and foster an inclusive environment for women in STEM, we need to continue to listen and respond to the needs of our employees and customers. We also need to accelerate sponsorship for career development and opportunities for women to reach senior leadership roles at increased rates to close the gap from history. Graduating women today in STEM are entering the workforce with expectation of an inclusive environment with equal opportunity for career growth as a standard for retention."





Prism Award

Carolyn Ribes, Ph.D.
Envelope Analytical Leader

Q: Who do you credit for helping you develop the leadership skills to reach your full potential in getting to the position you are in today?

A: “I’ve been fortunate to work with multiple great leaders in my career. They usually fit into one or more of these groups:

1. Leaders who modeled outstanding leadership skills, including leading with your heart as well as with your head.
2. Leaders who believed in me and provided me with opportunities. They also built up my confidence to accept the opportunity and support throughout. I found that volunteering in a professional society provided new ways to grow and develop skills within a safe setting; I could then apply those skills in the workspace.
3. People who provided me with the gift of feedback. Both positive and constructive feedback is so important for building and reinforcing development.”

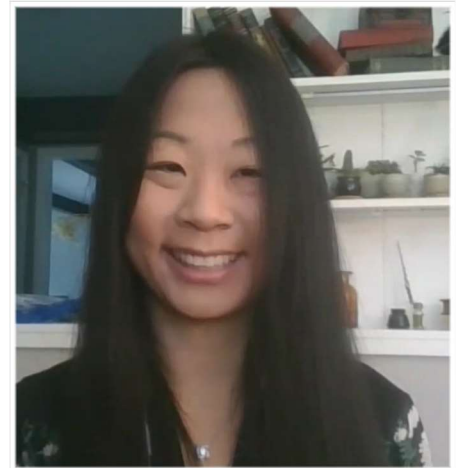
Rising Technical Contributor Award

Margaret Y. Hwang
Associate Research Scientist

Q: What empowers you to continue your work to aid in important discoveries throughout engineering and technology?

A: “There are a few things that motivate me when it comes to working towards new discoveries.

1. Curiosity – wanting to understand why to gain a fundamental understanding when solving a problem.
2. Tenacity – well, maybe it’s a bit of stubbornness as well. This gives the satisfaction of solving a problem while finding new approaches to do so.
3. Support network – nobody exists in a vacuum, so it is important to surround yourself with people that believe in my abilities and empower me.”





Rising Technical Contributor Award

Maria Paz Ochoa, Ph.D.
Senior Research Specialist

Q: When you think of all the accomplishments you have made in your career thus far, which one gives you the most pride and why?

A: "I've had the opportunity to work along with the brightest scientists I've ever met to solve real-world problems, where I have developed mathematical models to assist and support the decision-making process across different business and functions. Translating the

solutions of the computational tools I developed into real actions gives me most pride and motivates me to keep developing and applying new solutions to the challenging problems we face every day in the industry, such as the ambitious sustainability goals of the company, where we not only seek to optimize the economic profit but also the environmental and social aspects."

We would also like to recognize nine women for receiving Patent Recognition Awards.

- ***Amy Song**, Senior Research Scientist
- ***Bindu Krishnan Ph.D.**, Principal Research Scientist
- ***Jaime L. Curtis-Fisk, Ph.D.**, Senior R&D Leader
- ***Jessica R. Levin**, Associate Research Scientist
- ***Ling Zhong, Ph.D.**, Senior R&D Leader
- ******Rashi Tiwari**, Associate R&D/TS&D Director
- ***Stephanie Hughes**, R&D/TS&D Technologist
- ***Yanli Fen, Ph.D.**, Senior Research Scientist
- ***YuanQiao Rao**, R&D/TS&D Fellow

** = # of patents awarded*

Congratulations to our SWE award winners for their excellent work in the STEM industry. These individuals exemplify how we can move the world forward in STEM through innovation and inclusion.

Margherita Fontana

Global Strategic Planning & Governance Procurement Director & Global WIN Chair

Meijer brings recycled plastic bags full circle to Michigan store parking lot in pilot program using Dow technology.

In collaboration with Meijer, Dow enabled a new paving technique using recycled plastic bags to create a more durable parking lot for the retailer's Holland, Mich. supercenter. This recycled polymer modified asphalt (RPMA) parking lot is a three-phase pilot project that used approximately 12,500 pounds of post-consumer recycled plastic (PCR), which is the equivalent weight of 944,000 plastic grocery bags.



This project brings recycled plastic bags full circle, and also represents a long-term collaboration between two Michigan companies working toward a more sustainable future.

“Meijer operates under the philosophy that to be a good company, we must be a good neighbor and that often means working with other likeminded companies on a common goal,” said Rick Keyes, President & CEO of Meijer. “We are committed to lessening our impact on the environment and are pleased to partner with our customers and Dow in the largest in-state project of this kind to better demonstrate our commitment to a circular economy through recycling and reusing plastic to better ensure a more sustainable future.”

All of the recycled plastic used for the parking lot pilot project was deposited by Meijer customers through the retailer’s in-store plastic film recycling program. In 2014, Meijer placed a collection bin inside the front entrances of each of its stores for customers to deposit clean, dry plastic bags and films, including single use, bread, dry cleaning, produce and water softener bags. This year, Meijer expects to recycle 6 million pounds of plastics through this program.

Pilot project recycled approximately 12,500 pounds of plastic collected from Meijer customers via in-store recycling bins

“Lessening our impact on the environment through increased recycling efforts is an issue that’s important to us, which is why we believe this pilot project is just one of the ways we can bring our current recycling efforts full circle while improving our customer shopping experience,” said Vik Srinivasan, Senior Vice President of Properties and Real Estate at Meijer.

Powered by technology from Dow, these RPMA projects have increased durability versus unmodified asphalt.

“This is an exciting partnership from start to finish and a perfect example of how the plastics used to keep food safe and fresh, like bread bags, can have a new life as infrastructure like a parking lot,” said CJ DuBois, North American Paving Application Development Leader, Dow Packaging and Specialty Plastics. “Our collaboration with Meijer began two years ago. This RPMA parking lot made with recycled content and our technology is just one example of how we’re continually creating new technologies and initiatives to transform used plastics into functional and valuable solutions.”

This pilot project incorporated numerous partners to take the recycled plastics and turn them into a resurfaced parking lot. PADNOS, a materials recycler, aggregated the Meijer recycled plastics, and converted them into usable PCR content. K-Tech Specialty Coatings, an asphalt emulsion company, modified the base asphalt binder with Dow reactive elastomeric terpolymer (RET) and PCR content. Rieth-Riley, the construction contractor, produced the final hot-mix asphalt and paved the Meijer parking lot and gas station.

The pilot parking lot project with Meijer isn’t a first for Dow. The company began working on these projects in Indonesia in 2017, partnering with the Indonesian government towards its goal of reducing plastic waste in the ocean by 70 percent by 2025. In August 2021, Dow completed a RPMA [public street at The University of Missouri](#). Prior to this, Dow completed two RPMA roads at Dow’s Freeport, Texas site, two roads at the Dow Sabine River Operations and four public roads and two parking lots in the Great Lakes Bay Region of Michigan – totaling approximately 14,000 pounds or more than 1 million plastic bags. These RPMA projects are just a sample of efforts helping Dow reach its 2030

target to enable 1 million metric tons of plastic to be collected, reused or recycled through its direct actions and partnerships.

INNOVATIVE	CUSTOMER-CENTRIC	INCLUSIVE	SUSTAINABLE
Alongside our customers, we create the materials and solutions that transform our world.	We aim to be easy, enjoyable and effective to do business with through all our digital and personal interactions.	We champion a fully inclusive workforce that reflects the world in which we do business, because it's the right thing and smart thing to do.	In everything we do, we strive for positive impact on society and the planet.



Seek Together™

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