

**DOW**

# DOWFRIENDS Newsletter



## **25 years of progress: The journey of Dow's Global African Affinity Network Employee Resource Group**

This year is the milestone 25<sup>th</sup> anniversary of Dow's Global African Affinity Network (GAAN), our Employee Resource Group for colleagues of African heritage and allies. It's a time to reflect on the journey that has brought us to this moment.

[Learn More](#)

*Coming soon: Great Lakes Bay Region Dow Retiree United Way Campaign*

## Dow named among the “PEOPLE Companies that Care®” for 5<sup>th</sup> consecutive year

Dow has been named one of the 2024 PEOPLE Companies that Care by Great Place to Work® and PEOPLE, ranking #82 on the list of 100 companies, marking the fifth consecutive year the Company has earned a spot on this prestigious list.

[Learn More](#)



We have been named to the 2024 PEOPLE® Companies that Care List!



## Dow declares quarterly dividend of 70 cents per share

Dow has declared a dividend of 70 cents per share, payable September 13, 2024, to shareholders of records on August 30, 2024.

This marks the 452<sup>nd</sup> consecutive dividend paid by the Company or its affiliates since 1912.

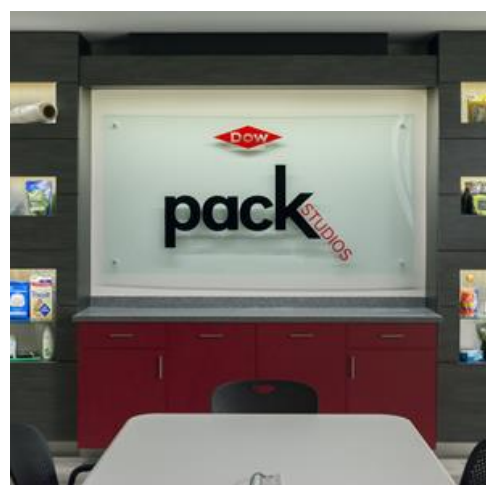
[Link to online article](#)

## Expanded capabilities at Dow Pack Studios help customers design for performance and recyclability

- ◆ *Dow is investing in the latest technology to advance next generation of innovative packaging options*

Dow announced two new technology additions at Pack Studios in Freeport, TX, to further its commitment to helping accelerate the development of circular packaging options. The additions include an MDO (Machine Direction Orientation) unit to its 9-layer blown film line for food and specialty packaging, and an upgraded Cast Film line designed to support industrial and commercial packaging customers.

Launched 12 years ago, Pack Studios was created to foster collaboration within the packaging industry. It has since become a premier innovation hub where brands and customers can experiment with different types of packaging without disrupting



their production lines. These latest advancements continue to make Pack Studios a go-to development and testing facility for brands and customers looking to design for performance and sustainability solutions—without hindering their own production lines.

“We often refer to Pack Studios as the packaging playground. It is a place where we work across the value chain to test and optimize packaging solutions,” said Kristin Matter, Dow’s Technical Services and Development Lab Leader at North America Pack Studios. “Without the downtime needed on production equipment, our partners can run trials and not lose valuable production time on their own lines. Our operations mirror the most advanced technology that our customers have on-site, so we can work hand-in-hand with them to continuously innovate better products to meet their exact needs.”

### **The Only In-Line, Commercial-Scale MDO Pilot Capabilities in North America**

The versatile MDO unit is a film-making technology that supports the creation of durable, high functioning films. The addition of the MDO extension to the 9-layer blown film line enhances Dow’s comprehensive suite of technologies for blown film applications to accelerate mono-material packaging development. This is a critical piece of technology to support the recycling of plastic films by testing their performance. As it stretches the plastic to its utmost tensile strength, it creates lighter-weight film (for use in packaging) and offers the use of less material per package. While there has been an increase in installation of MDO units, Dow has the only in-line, commercial-scale MDO pilot capabilities in North America, making Pack Studios a go-to place for brands to test and develop innovative packaging.

“This new MDO capability is part of Dow’s ‘Design for Recyclability’ initiative – offering options for all-polyethylene packaging designs that would otherwise consist of multi-material, non-recyclable solutions,” said Kara Stoney, Marketing Manager, Value Chain Engagement and Sustainable Packaging for Dow’s Packaging and Specialty Plastics business. “This equipment will be leveraged to help inform best practices in design and production across Dow’s global regions.”

### **New Cast Line Expands Capability, Versatility at Pack Studios**

While the MDO unit is an excellent choice for food and specialty packaging, the new cast film extrusion technology expands development and testing capabilities for industrial and commercial applications. The new Cast Film line is equipped with seven extruders, each paired with a six-component blending system, to aid in designing next-generation cast films. Dow’s distinct materials produce high-performance films and packaging to facilitate the transport of goods safely and efficiently and with minimal product damage. And now, with these expanded capabilities, Dow is positioned to help customers keep circular and renewable packaging options at the forefront of the design process. For example, more complex cast film lines support a focus on sustainability through down gauging, the addition of post-consumer recycled (PCR) content, and materials designed to facilitate recycling.

The new semi-commercial line has a fully automated winding section for loading and unloading that provides enhanced safety features. This level of automation is a first at Dow Pack Studios and reflects the company’s continued commitment to improving safety.

Each line is equipped with an EREMA pelletizing unit that can also be used as a stand-alone system offering an opportunity to produce in-house recycled materials for evaluation and understanding. These investments in advanced technologies represent Dow's continued commitment to enhancing design capabilities and collaboration with its customers.

To learn more about Pack Studios' expanded capabilities, visit [here](#).

[Link to online article](#)

---

## At the heart of award-winning performance

### The process to get from initial ideas to innovation awards

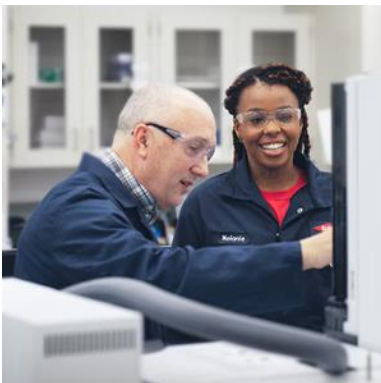
---

*"We believe that the path to groundbreaking innovation is paved with collaboration, investment in emerging technologies, and the value of a diverse team."*

*– Rui Vogt Alves da Cruz, Vice President, Core Research & Development*

---

Breakthrough innovation often starts with inspiration—people inspired by a purpose to solve a challenge or create something better.



At Dow, our purpose is to create a sustainable future for all. The **Edison Awards** help to demonstrate to the world that innovative thinking and sustainable practices are complementary endeavors. This year, we had twelve **Edison Awards winners**.

We know innovation is a powerful catalyst for positive change in our world. Our approach is deeply rooted in research and development (R&D) that is built on connection – to our customers, to society, and to the planet.

As I reflected on our seventh consecutive year of **record-setting innovation awards recognition**, I thought about what it takes to achieve this level of consistent performance. It's critical we keep delivering the breakthrough innovation required to improve the lives of people and the health of our planet. So, how do we do that? What are the critical elements?

## Having a seat at the design table with customers and value chain leaders is crucial

It allows us to work on critical problems and minimize potential obstacles on the journey to commercialization. It also allows us to focus our efforts where innovation is most needed. For example, customers are working to improve the sustainability of their products, and we are meeting their need with products that are designed for recyclability, enable lower greenhouse gas emissions (GHG), contain recycled content and more, all while offering the same or improved performance. In fact, more than 89% of our R&D innovation pipeline is aligned to our sustainability focus areas of **climate protection**, **circular economy** and **safer materials**. Sustainability is a driving factor for innovation, the vast majority of our products that won 2024 Edison Awards provide clear sustainability advantages. For example, INVISU™ 7007 Water-Borne Label Adhesive allows for clean separation of film labels to enhance their recyclability, and SPECFLEX™ CIR Polyurethane Series is designed to help automotive OEMs (original equipment manufacturers) meet their market and regulatory demands for more circular products.

## Investing in emerging technologies to help accelerate R&D

Dow R&D conducts thousands of highly automated experiments simultaneously using state-of-the-art high-throughput research, informatics and data analysis, enabling us to commercialize nearly 2,000 new products every year and improve time-to-market for our customers. We have invested in advanced robotics and computing to allow us to do more experiments than ever before. In fact, we were recognized with a Gold Award by the Edison Awards in the Digital Transformation and Data Governance category for our **Predictive Intelligence**. This is an artificial-intelligence-driven initiative that uses advanced data analytics and machine learning to revolutionize the polyurethane formulation process and accelerate time to market of differentiated solutions.

## Valuing a diverse team and breadth of expertise

We believe a diverse team with capabilities across multiple scientific and engineering disciplines is a key element of success. Across our R&D organization we have expertise in catalysis and synthesis, engineering fundamentals, formulations and interfacial phenomena, materials sciences, and modeling and optimization. This diverse expertise allows us to develop polymers, products and process that are higher-performing and improve sustainability. To build this type of talent pipeline, we actively seek out individuals with a passion for innovation and a drive to make a difference. We foster partnerships with leading universities and research institutions worldwide to attract top-tier talent. Our recruitment process is designed to identify individuals who not only have the technical skills required but also align with our core values. Dow is also heavily committed to cultivating a safe and enjoyable workplace and to the continuous learning and development of our employees.

We believe that the path to **groundbreaking innovation** is paved with collaboration, investment in emerging technologies, and the value of a diverse team. We sit at the design table with our customers and value chain leaders as active contributors to the creation of sustainable, high-performance solutions. Our investments in cutting-edge technologies accelerate our R&D efforts, enabling us to deliver award-winning innovations. Above all, we recognize that a diverse team with breadth of expertise is our greatest asset. As we continue to strive for better, we remain committed to

**our purpose** - to work relentlessly for the benefit of people and the planet. Because at Dow, we don't just believe there's always an opportunity to "do it better" - we make it our mission to find it.

[Link to online article](#)

---

## Five Dow products recognized in the 2024 R&D 100 Awards

- ◆ **13<sup>th</sup> consecutive year Dow technologies earn this prestigious recognition**
- ◆ **Dow set the bar in the Mechanical/Materials Category**
- ◆ **This marks 63 cumulative awards, the most of any company in the history of the R&D 100 Awards**

In the 2024 R&D 100 Awards, **Dow** led the way in the Mechanical/Materials Category with four winning technologies and one finalist. These award-winning products were commended for helping transform industries with their exceptional properties.

"We are extremely delighted in the fact that Dow has been acknowledged on the R&D 100 list for an unbroken streak of thirteen years. Over this period, the company's products, people, and technologies have garnered a total of 63 awards – more than any other company," stated A.N. Sreeram, the Senior Vice President of Research & Development and Chief Technology Officer at Dow. "The reason for our success remains our people, who are committed to creating more unique products and solutions for our customers, addressing higher performing demands on our products and technologies while simultaneously being sustainable, and generating value for our shareholders."



From enhancing power and telecommunication applications, to providing water repellency for clothing, and promoting recyclability in flooring applications — these innovations highlight Dow's commitment to superior performance and sustainability.

### Dow's 2024 R&D 100 Award winners:

**AXELERON™ 6321 BK Telecom Cable Compound** is a black, UV-stabilized HDPE cable jacket material designed for power and telecommunication applications, such as Prysmian's Sirocco™ Microduct Cables. This innovatively designed jacket is laser printable, has a low coefficient of friction (COF) and extremely low shrinkage to enable extremely high fiber count in smaller diameter cables and increase cable installation efficiency offering excellent toughness, weather resistance, and high-speed extrusion processing.

**DOWSIL™ 2080 Resin** is ideal for creating powder form silicone modified polyester resin using a solventless process. This innovative resin enhances heat resistance, improves film appearance and

boosts the durability of powder coatings. By using this resin, manufacturers can achieve high-quality, resilient, and visually appealing coatings suitable for various applications.

**DOWSIL™ IE-9100 Emulsion** is a remarkable product composed of 81% bio-based material. It offers exceptional, long-lasting water repellency, making it ideal for outdoor and performance clothing. This innovative emulsion ensures that garments remain dry and comfortable, even in challenging weather conditions. By incorporating DOWSIL™ IE-9100 Emulsion, manufacturers can produce high-performance clothing that caters to customer demands for active lifestyles and sustainability.

**PARALOID™ Additives** help the upcycling of polyvinyl butyral (PVB) recovered from used car windshields into vinyl flooring and carpet backing applications. Additives regularly used for modifying the properties of PVC (polyvinyl chloride) required significant innovation to enable their incorporation into recycled PVB while providing the needed performance improvements. These products are currently being application tested by customers.

#### **Dow's 2024 R&D 100 Award finalist:**

**DIRTSHIELD™ 17 Emulsion** is a sustainable premium exterior binder designed without benzophenone - a material of concern (carcinogen category 1B). It facilitates high-quality acrylic paint formulation for outdoor use with long-lasting superior durability, color performance and proven dirt resistance.

Initiated in 1963, the R&D 100 Awards stands as the sole science and technology awards contest that acknowledges the technological importance of new commercial products, technologies, and materials that are ready for sale or licensing. The renowned worldwide science and innovation competition celebrated its 62nd year and received entries from 16 different countries and regions. The R&D 100 Awards program is globally acknowledged as a mark of high distinction within the research and development community. This program honors ground-breaking innovators and their significant contributions to the fields of science and technology.

While awards demonstrate our success and innovation in the industry, it's our people that make it all possible. Visit the [Dow Awards](#) page to learn more about our achievements and the incredible team behind them.

The full list of 2024 R&D 100 Awards winners may be viewed on [R&D World](#).

[Link to online article](#)

---

## Driving toward a lower-carbon future

---

*“I can’t wait to see how the work we’re doing today contributes to the cars my children drive tomorrow.”*

*- Selamawit Belli, MobilityScience™ PU Strategic Market Leader*

---

When I was a child, my dream car was always red, fast and fun to drive. Now, like a lot of people, my dream car starts with the future in mind. Not only is my ideal car safe, reliable, comfortable, connected and still fun to drive, but it also contributes to a net zero, circular world.

As part of Dow’s **MobilityScience™** team, I have the privilege of working alongside original equipment manufacturers (OEMs), Tiers and others on the front line of the automotive industry to help accelerate a smarter, safer and more sustainable vision for mobility. Using our materials and application expertise, our team is constantly innovating to help the automotive industry address the triple goals of climate protection, circular economy, and safer materials across a vehicle’s life cycle – through design, production, use and end of life.



We believe Dow has the opportunity and responsibility to lead change in all industries that we participate in when it comes to climate protection. **Through our Protect** the Climate commitments, we are making good progress to decarbonize our manufacturing facilities while developing innovative products to support our customers’ efforts to reduce their greenhouse gas emissions.

In the automotive industry, it starts with the carbon footprint of a car. OEMs focus on carbon emissions during manufacturing and use. As a materials science leader, Dow can help enable not just EV production but also reduce the embedded carbon used to make those materials.

## Improving battery performance

One of the critical challenges the industry faces is improving battery performance. Electrification is a “must-do” to reduce carbon emissions in the environment, and the battery is a key component of electrification – the new lifeblood of the vehicle.

To address safe, optimal **battery performance**, thermal management is important. We have a broad array of proven thermal interface solutions, from silicones to polyurethanes, that leverage our materials science knowledge and industry expertise to drive forward both electric and hybrid vehicle



battery pack development. These solutions can contribute to longer-range, better-performing and more economical electric and hybrid vehicles – and a net-zero future.

I have long believed that the dreams you imagine have the power to change the future. I am proud to help our customers power the future with solutions that are driving the transition to low- and zero-emission, energy-efficient and affordable vehicles. I can't wait to see how the work we're doing today contributes to the cars my children drive tomorrow.

[Link to online article](#)

---

## **Dow announces more than \$9 million in community investments in Alberta**

- ◆ ***\$6.8 million CAD will support design and construction of the City of Fort Saskatchewan's new aquatics facility and the Access for Everyone program***
- ◆ ***\$2.5 million CAD will support a nourishment centre in Fort Saskatchewan, a conservation project for Prairie Potholes, and STEM and skilled trades education for Indigenous students***

Dow hosted a partnership event to recognize key business and community partners and government officials for their commitment to the Company's Fort Saskatchewan Path2Zero expansion project. The project will create the world's first net-zero emissions integrated ethylene cracker and derivatives site with respect to Scopes 1 and 2 emissions.

The event included announcements of major community investments from the Dow Company Foundation for the City of Fort Saskatchewan's new aquatics facility, including an equitable access program; the Fort Saskatchewan Nourishment Centre (formerly Food Bank); Ducks Unlimited; and STEM and skilled trades programming support for Indigenous students.

"These collaborations reflect Dow's belief that our actions should positively impact the communities where we operate and the environment we share," said Don Cameron, Dow Alberta Operations site director. "As we continue with our Path2Zero expansion project, we embrace this responsibility and strive to actively create meaningful and positive change to help our communities thrive."

### **Dow's funding will support the following:**

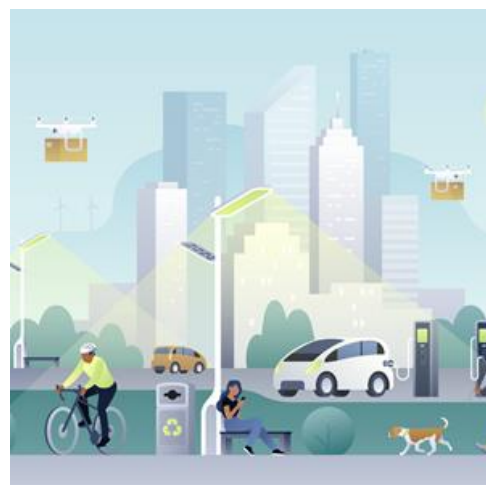
- ◆ \$5.6 million CAD toward the design and construction of **the City of Fort Saskatchewan's** new aquatics facility and \$1.2 million CAD toward a reserve fund for the **Access for Everyone program** to provide equitable access to recreation, culture programs and city facilities. This reserve fund will act as an endowment to provide a sustainable funding source for residents in need both today and well into the future.

- ◆ More than \$2 million CAD toward the **Fort Saskatchewan Nourishment Centre**, including \$1.2 million CAD for the building fund, additional resources for the building of a community kitchen and funding for a refrigerated vehicle to help expand delivery services so the most vulnerable residents can more easily access services.
- ◆ A \$350,000 CAD grant to **Ducks Unlimited** to support conservation efforts for the **Prairie Potholes** near Lacombe, Alberta.
- ◆ And a \$150,000 CAD grant to support **STEM and skilled trades** education pipelines for Indigenous students by collaborating with **Trade Winds to Success**, **Indspire**, and the **University of Alberta's I-STEAM Pathways** and Indigenous youth participation in the **DiscoverE** program.

"We are thrilled to see Dow's continued investment in our community, and we know these partnerships will profoundly impact the lives of residents in Fort Saskatchewan and the surrounding regions," said Fort Saskatchewan Mayor Gale Katchur. "We are so proud that Dow has chosen our city for its expansion project, and we look forward to continued growth and prosperity together."

The Fort Saskatchewan Path2Zero expansion project is part of the Company's outlined and clear path to decarbonize its manufacturing facilities while growing and delivering low-carbon products to customers. The project and community investments illustrate Dow's focus on best-in-class performance while contributing to long-term value creation for our customers, shareholders and community members.

"We are incredibly grateful for the opportunity to partner with Dow in our mission to address food insecurity and alleviate hunger," said Amanda Bell, executive director of the Fort Saskatchewan Nourishment Centre. "For years, our leaders, board members and volunteers have envisioned a time when we would fully own our forever home. A seemingly insurmountable goal has been achieved. We will better the lives of our residents in a truly meaningful way and enable us to bring people and organizations together, streamline and target needed services, and create vital connections to promote advocacy, societal change, self-esteem, personal and professional growth opportunities and to build community."



### **About Dow in Canada**

In Canada, Dow employs approximately 700 people. Headquartered in Calgary, Alberta, Dow Canada has four manufacturing locations: Fort Saskatchewan and Prentiss (Lacombe County) in Alberta; and West Hill (Toronto) and St. Clair River (Corunna) in Ontario. Dow produces polyethylene in Alberta. The St. Clair River site modifies polyethylene and polypropylene. At the West Hill location, Dow manufactures water-based emulsions, which go into a variety of products, the biggest single application being latex paint.

[Link to online article](#)

---

## Dow introduces its first bio-circular attributed product for carpet tile backing

- ◆ *This new addition to the ENGAGE™ REN Polyolefin Elastomers product portfolio addresses the need for more sustainable options in the flooring industry*
- ◆ *Bio-circular\* materials are a key pillar of Dow's vision to accelerate carbon neutrality and circularity for plastics*

Dow announced the introduction of its first bio-circular product\* for the flooring industry, an addition to the ENGAGE™ REN Polyolefin Elastomers (POE) product portfolio. The flooring innovation\* will be used in the manufacturing of carpet tile backing to provide dimensional stability and adhesion support for fibers.



This new bio-circular product\* brings the same high performance as the rest of the ENGAGE™ POE portfolio while helping customers meet their sustainability goals. ENGAGE™ REN POEs offer a viable alternative to virgin petrochemical products by utilizing alternative feedstocks produced from residues of biological origin and responsibly sourced waste, such as used cooking oil, and converting them into bio-circular products\* with a lower carbon impact. Dow's resins from bio-circular feedstocks are ISCC PLUS-certified under a mass balance approach for chain of custody, allowing customers to account for these materials in their supply chains.

"This innovation represents a crucial step toward expanding our circularity offerings into new markets," said Joanna Giovanoli, senior marketing manager for Dow's Packaging and Specialty Plastics business. "By supporting our flooring customers with bio-circular feedstock options that maintain high performance, we can give waste a new life, potentially reducing carbon footprints and reliance on fossil feedstocks. This is how we are moving Dow and our customers closer to shared sustainability goals."

Bio-circular materials are a key pillar within Dow's vision for a lower-carbon plastics ecosystem. Dow's "**Transform the Waste**" target aims to commercialize 3 million metric tons of circular and renewable solutions by 2030, which involves using plastic waste and alternative feedstocks, including bio-circular. These raw materials, made from waste residues or by-products from an alternative production process, support a circular economy by enabling material reuse.

"We are committed to developing innovative products that meet the sustainability needs of our customers and help drive toward a circular economy," said Rosalyn Kent, associate TS&D scientist for Dow's Packaging and Specialty Plastics business. "To do this, we continue to explore alternative

feedstock options that reduce the impacts of production and invest in new partnerships that progress bio-circular raw materials to produce high-quality resins.”

*\*bio-circular attributed under mass balance chain of custody approach*

[Link to online article](#)