

The Dow logo, featuring the word "DOW" in white capital letters inside a red diamond shape.

# DOWFRIENDS Newsletter

## DowFriends News

Dow products and technologies were presented with an all-time high nine Edison Awards. The [Edison Awards™](#) are one of the highest accolades a company can receive in honor of innovation and business success.

Learn more about how Dow continues to seek collaborative and complementary partnerships to drive our path forward to Decarbonize and Grow.

### Investing in a sustainable future

As we celebrate all that our planet has provided and the life it sustains this Earth Day, it is important to remember that our planet's resources are not limitless.

[Learn More](#)



## 1Q 2023 Earnings

### Dow reports first quarter 2023 results



Seek Together™

#### FINANCIAL HIGHLIGHTS

- GAAP loss per share was \$0.13; operating earnings per share (EPS)<sup>1</sup> was \$0.58, compared to \$2.34 in the year-ago period and \$0.46 in the prior quarter. Operating EPS excludes significant items in the quarter, totaling \$0.71 per share, primarily due to restructuring costs and a litigation matter.

- Net sales were \$11.9 billion, down 22% versus the year-ago period, reflecting declines in all operating segments driven by slower global macroeconomic activity. Sales were flat sequentially, as gains in Performance Materials & Coatings and Packaging & Specialty Plastics offset declines in Industrial Intermediates & Infrastructure.
- Volume decreased 11% versus the year-ago period, led by a 15% decline in Europe, the Middle East, Africa, and India (EMEA). Sequentially, volume increased by 2%, due to gains in Performance Materials & Coatings and Packaging & Specialty Plastics.
- Local price declined 10% versus the year-ago period and 4% sequentially, with declines in all operating segments and regions due to industry supply additions amidst continued soft global economic conditions.
- Currency decreased net sales by 1% year-over-year, and increased net sales by 2% sequentially.
- Equity losses were \$48 million, compared to equity earnings of \$174 million in the year-ago period, driven by declines at the Company's principal joint ventures. Equity losses were \$43 million in the prior quarter. Sequentially, the earnings decline was primarily driven by planned maintenance activity at Sadara.
- GAAP net loss was \$73 million. Operating EBIT<sup>1</sup> was \$708 million, down \$1.7 billion versus the year-ago period, with declines in all operating segments due to lower local prices and reduced operating rates to match market dynamics. Sequentially, Op. EBIT was up \$107 million, primarily driven by Performance Materials & Coatings.
- Cash provided by operating activities – continuing operations was \$531 million, down \$1.1 billion year-over-year and down \$1.5 billion compared to the prior quarter. The Company delivered cash flow conversion<sup>1</sup> of 85% on a trailing 12-month basis.
- Returns to shareholders totaled \$621 million in the quarter, including \$496 million in dividends and \$125 million in share repurchases.

## SUMMARY FINANCIAL RESULTS

<i>In millions, except per share amounts</i>	Three Months Ended Mar 31			Three Months Ended Dec 31	
	<u>1Q23</u>	<u>1Q22</u>	<u>vs. SPLY</u> <u>[B / (W)]</u>	<u>4Q22</u>	<u>vs. PQ</u> <u>[B / (W)]</u>
<b>Net Sales</b>	\$11,851	\$15,264	\$(3,413)	\$11,859	\$(8)
<b>GAAP Income (Loss), Net of Tax</b>	\$(73)	\$1,552	\$(1,625)	\$647	\$(720)
<b>Operating EBIT<sup>1</sup></b>	\$708	\$2,419	\$(1,711)	\$601	\$107
<b>Operating EBIT Margin<sup>1</sup></b>	6.0%	15.9%	(990) bps	5.1%	90 bps
<b>Operating EBITDA<sup>1</sup></b>	\$1,356	\$3,171	\$(1,815)	\$1,255	\$101
<b>GAAP Earnings (Loss) Per Share</b>	\$(0.13)	\$2.11	\$(2.24)	\$0.85	\$(0.98)
<b>Operating Earnings Per Share<sup>1</sup></b>	\$0.58	\$2.34	\$(1.76)	\$0.46	\$0.12
<b>Cash Provided by Operating Activities – Cont. Ops</b>	\$531	\$1,612	\$(1,081)	\$2,078	\$(1,547)

## CEO QUOTE

Jim Fitterling, chairman and chief executive officer, commented on the quarter:

“Team Dow demonstrated its agility and remained disciplined through challenging macroeconomic conditions – leveraging our structurally advantaged feedstock positions, focusing on higher-value products where demand remained resilient, and aligning our operating rates with market dynamics. Our actions to deliver \$1 billion in cost savings in 2023 are progressing, reinforcing our low-cost-to-serve operating model and continuing to maximize cash flow generation. With ample liquidity and financial flexibility, execution of our strategy is on track as we advance our disciplined and balanced capital allocation priorities for long-term value creation.

“Additionally, the annual benchmarking we published today reflects our differentiated portfolio and our disciplined and balanced capital allocation track record. Focused on industry-leading cash generation, Dow delivered best-in-class free cash flow yield on a three-year average and net debt reduction since spin. We also achieved above-peer median three-year average EBITDA margins, return on invested capital, and returns to shareholders, supported by our investments in higher-return, faster-payback and lower-risk projects.”

## SEGMENT HIGHLIGHTS

### Packaging & Specialty Plastics

<i>In millions, except margin percentages</i>	Three Months Ended Mar 31			Three Months Ended Dec 31	
	<u>1Q23</u>	<u>1Q22</u>	<u>vs. SQLY [B / (W)]</u>	<u>4Q22</u>	<u>vs. PQ [B / (W)]</u>
<b>Net Sales</b>	\$6,114	\$7,627	\$(1,513)	\$6,073	\$41
<b>Operating EBIT</b>	\$642	\$1,234	\$(592)	\$655	\$(13)
<b>Operating EBIT Margin</b>	10.5%	16.2%	(570) bps	10.8%	(30) bps
<b>Equity Earnings</b>	\$21	\$110	\$(89)	\$56	\$(35)

Packaging & Specialty Plastics segment net sales in the quarter were \$6.1 billion, down 20% versus the year-ago period. Local price decreased 11% year-over-year, as continued resilience in functional polymers was more than offset by lower polyethylene and olefin prices. Currency decreased net sales by 1%. Volume decreased 8% year-over-year, driven by lower consumer demand in EMEAI and lower Sadara export volumes due to planned maintenance activity. On a sequential basis, net sales increased by 1%, with volume gains in olefins and polyethylene partly offset by lower sales from non-recurring licensing activity.

Equity earnings were \$21 million, down \$89 million compared to the year-ago period, primarily due to lower integrated polyethylene margins at the Company’s principal joint ventures. Equity earnings were down \$35 million on a sequential basis, primarily due to planned maintenance activity at Sadara.

Operating EBIT was \$642 million, compared to \$1.2 billion in the year-ago period, primarily due to lower integrated polyethylene margins. Sequentially, Op. EBIT was slightly down by \$13 million as improved input costs and higher operating rates were more than offset by lower sales from non-recurring licensing activity and lower equity earnings.

Packaging and Specialty Plastics business reported a net sales decrease versus the year-ago period, as gains in functional polymers – primarily for renewable energy applications – were more than offset by lower local polyethylene prices and lower industrial and consumer packaging sales volumes in EMEAI and Asia Pacific. Sequentially, net sales decreased primarily due to non-recurring licensing activity in the prior quarter.

Hydrocarbons & Energy business reported a net sales decrease compared to the year-ago period, driven primarily by lower olefin and aromatic sales in EMEAI. Sequentially, net sales increased primarily due to higher olefin volumes in EMEAI and the U.S. & Canada.

## Industrial Intermediates & Infrastructure

<i>In millions, except margin percentages</i>	Three Months Ended Mar 31			Three Months Ended Dec 31	
	<u>1Q23</u>	<u>1Q22</u>	<u>vs. SQLY</u> <u>[B / (W)]</u>	<u>4Q22</u>	<u>vs. PQ</u> <u>[B / (W)]</u>
<b>Net Sales</b>	\$3,378	\$4,524	\$(1,146)	\$3,653	\$(275)
<b>Operating EBIT</b>	\$123	\$661	\$(538)	\$164	\$(41)
<b>Operating EBIT Margin</b>	3.6%	14.6%	(1,100) bps	4.5%	(90) bps
<b>Equity Earnings (Losses)</b>	\$(73)	\$62	\$(135)	\$(96)	\$23

Industrial Intermediates & Infrastructure segment net sales were \$3.4 billion, down 25% versus the year-ago period. Local price decreased 6% year-over-year and currency decreased net sales by 2%. Volume was down 17% year-over-year, primarily driven by lower demand for industrial, building & construction, and consumer durables applications. On a sequential basis, the segment recorded a net sales decline of 8%, driven by lower volumes in Industrial Solutions and local price declines in Polyurethanes & Construction Chemicals.

Equity losses for the segment were \$73 million, compared to equity earnings of \$62 million in the year-ago period, driven by lower demand and competitive pricing pressures in MEG and propylene oxide derivatives due to supply additions in China. On a sequential basis, equity losses improved by \$23 million, with better results at the Company's principal joint ventures.

Operating EBIT was \$123 million, compared to \$661 million in the year-ago period, driven by lower pricing and demand as well as higher energy costs particularly in EMEAI. On a sequential basis, operating EBIT was down \$41 million as lower energy costs versus the prior quarter were more than offset by lower pricing and volumes.

Polyurethanes & Construction Chemicals business reported a net sales decrease compared to the year-ago period, primarily driven by lower demand for building & construction, consumer durables, and industrial applications. Sequentially, net sales declined primarily driven by lower local price for propylene oxide and its derivatives and isocyanates.

Industrial Solutions business reported a decrease in net sales compared to the year-ago period, as resilient demand in pharmaceutical and energy end-markets was more than offset by lower demand for

coatings and industrial applications. Sequentially, net sales decreased as improved demand for home care and cleaning applications was more than offset by reduced supply availability from weather-related impacts and a third-party outage, combined with lower demand in industrial end-markets.

## Performance Materials & Coatings

<i>In millions, except margin percentages</i>	Three Months Ended Mar 31			Three Months Ended Dec 31	
	<u>1Q23</u>	<u>1Q22</u>	<u>vs. SPLY</u> <u>[B / (W)]</u>	<u>4Q22</u>	<u>vs. PQ</u> <u>[B / (W)]</u>
<b>Net Sales</b>	\$2,276	\$3,049	\$(773)	\$2,058	\$218
<b>Operating EBIT</b>	\$35	\$595	\$(560)	\$(130)	\$165
<b>Operating EBIT Margin</b>	1.5%	19.5%	(1,800) bps	(6.3) %	780 bps
<b>Equity Earnings</b>	\$3	\$3	-	\$4	\$(1)

Performance Materials & Coatings segment net sales in the quarter were \$2.3 billion, down 25% versus the year-ago period. Local price decreased 12% year-over-year, primarily driven by lower local prices for siloxanes due to competitive pricing pressure from supply additions in China. Currency decreased net sales by 2%. Volume declined 11% year-over-year, with declines in both businesses and in all regions. On a sequential basis, net sales were up 11% due to improved supply availability and seasonally higher volumes for silicones and coatings in building & construction end-markets.

Operating EBIT was \$35 million, compared to \$595 million in the year-ago period, driven by local price declines in siloxanes and lower demand for silicones and coatings applications. Sequentially, Op. EBIT increased \$165 million, driven by improved supply availability, seasonally higher volumes, and reduced value-chain destocking pressure.

Consumer Solutions business reported a decrease in net sales versus the year-ago period, driven by lower local price and volumes for siloxanes that more than offset resilient demand for commercial building and construction and mobility applications. Sequentially, net sales increased as improved supply availability for siloxanes, seasonally higher demand in building & construction, and reduced value-chain destocking pressure were partly offset by lower local prices for siloxanes.

Coatings & Performance Monomers business reported a decrease in net sales compared to the year-ago period, as improved monomer supply availability and resilient demand for industrial coatings were more than offset by lower demand for architectural coatings and local price declines. Sequentially, net sales increased as seasonally higher volumes in the U.S. & Canada and EMEA were partly offset by lower local prices.

## OUTLOOK

“Looking to the remainder of the year, our consistent and disciplined execution enhances our ability to navigate the impact of higher inflation on consumer demand and soft global economic activity. We expect the benefit of our operational and cost actions to continue to build as we progress through 2023. We will remain flexible, responding quickly as conditions evolve and expect oil and gas spreads to further support our strategic cost-advantaged positions,” said Fitterling. “Importantly, the underlying

long-term growth fundamentals in our market verticals remain intact, as we advance both our Decarbonize and Grow and Transform the Waste strategies to raise our underlying earnings profile by \$3 billion across the economic cycle.”

[Link to the online article](#)

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## **Dow announces results from 2023 Annual Stockholder Meeting**

- ◆ *Declares quarterly dividend of 70 cents per share*
- ◆ *Richard K. Davis re-elected independent lead director*

Dow is pleased to report the preliminary results of its 2023 Annual Meeting of Stockholders. Today stockholders elected Samuel R. Allen, Gaurdie E. Banister Jr., Wesley G. Bush, Richard K. Davis, Jerri DeVard, Debra L. Dial, Jeff M. Fettig, Jim Fitterling, Jacqueline C. Hinman, Luis Alberto Moreno, Jill S. Wyant, and Daniel W. Yohannes to the Company's Board of Directors for one-year terms.

Stockholders approved an advisory resolution on executive compensation and ratified the appointment of Deloitte & Touche LLP as Dow's independent auditor for 2023. A majority of votes cast by Dow stockholders were against the Stockholder Proposal for an Independent Board Chairman and against the Stockholder Proposal for a Single-Use Plastics Report.

The final voting results on all agenda items will be available in a Form 8-K to be filed by the Company, which can be found at [investors.dow.com](https://investors.dow.com) after certification by the Company's inspector of elections. The meeting will be available via [webcast](#) replay on Dow's website. Additionally, the Company expects to publish its [annual INtersections report](#) mid-year and will continue to include disclosures on our climate, circularity and other sustainability initiatives.

Following the Company's 2023 Annual Meeting of Stockholders, the Board of Directors declared a quarterly dividend of 70 cents per share, payable June 9, 2023, to shareholders of record on May 31, 2023. This marks the 447th consecutive dividend paid by the Company or its affiliates since 1912.

The Board also re-elected Richard K. Davis to serve as independent lead director for a one-year term. Mr. Davis joined Dow's board in May 2015 and has served as independent lead director since April 2021. Additionally, he has served as a member of the Company's corporate governance committee since April 2019 and as chair of the audit committee since April 2021.

Dow's board ranks in the top quartile for ethnic diversity among industry peers and nearly 60% of its directors are women or U.S. ethnic minorities – demonstrating the Company's commitment to diversity. The Company's Board of Directors is comprised of a strong balance of new and highly experienced directors, with an average tenure of approximately 5 years. All directors are all highly accomplished leaders and together bring a variety of relevant skills and diverse experiences, including capital allocation; financial acumen; risk management; technology expertise; operational experience; and environmental, social and governance expertise.

Biographies for all directors, committee assignments and other corporate governance information are available on our [Corporate Governance](#) website.

[Link to the online article](#)

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## Dow Wins 2023 Artificial Intelligence Excellence Award



Dow has been named a winner of a [2023 Artificial Intelligence Award](#) for the development of an innovative technology that identifies and predicts corrosion failures in metal coatings using [computer vision](#).

The patent-pending technology developed by Dow’s global Coating Materials Research & Development (R&D) team highlights the growing impact of digitalization in the industry and represents some of the latest digital capabilities enabled by [DOW™ Paint Vision](#). Built and backed by scientists, Dow Paint Vision offers data-driven capabilities designed to simplify the formulation process and accelerate innovation in the paints and coatings industry.

“The innovative minds and expertise of Dow’s global Coating Materials R&D organization has led to a solution that leverages digital capabilities in order to predict the strength of coatings formulations,” said [A.N. Sreeram](#), senior vice president, Research & Development, and chief technology officer for Dow. “This newly standardized image processing plan will allow our researchers to predict the durability of coatings formulations to further enable the manufacturing of longer-lasting applications.”

Many critical coating performance attributes are traditionally rated by researchers using visual assessment to quantify film performance. The rating is assessed subjectively, often using guidelines provided by an industry specification or third party.

Through customization of both the hardware and software of the new imaging technology, images are captured in a consistent format and tagged with relevant experimental context and metadata. This approach eliminates inconsistencies caused by human perception and enables an accurate and consistent means of digitizing the appearance of coatings.

A convolutional neural network (CNN) model analyzes images to produce robust and quantifiable ratings. In a study performed by Dow scientists, corrosion performance predictions were validated against human ratings with an accuracy greater than 90%. The results are stored in a centralized database that is available as a historical record for future algorithm development and improvement.

By using innovative machine processing algorithms in conjunction with standardized imaging stations, Dow scientists are streamlining collaboration across our global labs and revolutionizing the testing of traditionally subjective visual methods for coatings applications.

Presented by the Business Intelligence Group™, the 2023 Artificial Intelligence Awards recognize organizations, products and people who bring artificial intelligence to life and apply it to solve real world challenges.

Learn more about Dow’s latest strides in Innovation on [dow.com](#).

[Link to the online article](#)

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## Dow Personal Care accelerates sustainable portfolio transformation with six new product launches at in-cosmetics Global 2023

Dow scientific and marketing experts will showcase high-performing products for, sustainable, and inclusive formulations to create meaningful brand experiences.

Dow will present its latest innovative ingredients at in-cosmetics Global 2023 in Barcelona, Spain, from March 28-30 (booth N90). The new product launches, including the debut of the ECOllaboration 2.0 Concepts Collection, celebrate one of the largest portfolios in the personal care industry that focuses sustainable and high performance solutions.



This year, Dow will go beyond the traditional trade show experience. During a [live formulation masterclass on March 29 at 12:30 p.m. in Lab 2](#), customers can collaborate with Dow scientists to learn how to create an innovative cream gel using bio-based ingredients, **MaizeCare™ Clarity Polymer** and **EcoSmooth™ Rice Husk Cosmetic Powder**. The formulation will provide skin illumination while keeping your natural skin tone. Its experts will guide visitors through the formulation process, share their expertise, give hands-on tips, and showcase sustainable formulation practices.

“We continue to expand our offering with new highly performing bio-derived and bio-degradable ingredients. In this way, brands can deliver their promise to consumers to delight them with formulations that are gentle on the skin, hair and the environment. With our six new launches, we are further strengthening our promise to accelerate the transition towards a low-carbon, circular economy.” said Isabel Almiro do Vale, Global Strategic Market Director of Dow Personal Care. “As we continue to expand and broaden our portfolio, we rely on our deep scientific expertise, marketeers, and trusted partnership teams to cater to the various demands of customers. We remain devoted to sustainability and inclusion providing ingredients customers can trust, and believe in.”

The latest product launches span across a range of beauty care applications, including skin care, hair care, sun care and color cosmetics. The **ECOllaboration 2.0 Concepts Collection** emphasizes Dow’s commitment to delivering cutting-edge, bio-based ingredients that feature pioneering formats and inspiring formulations. With a natural origin content of 90% and above, these products are crafted with a distinct emphasis on diversity & inclusion. The collection embraces ageless, gender-neutral products, while focusing on beauty accessibility.

Dow’s new launches and featured products include:

- ◆ **EcoSense™ APP-5000 Formulation Aid:** This emulsifier is bio-based and requires a lower use level than the existing emulsifiers in the market. It supports consumer demand for natural formulations, 100% renewable material and upcycling. It can be used in a variety of skin care, body care, hair care and solid deodorant products. This product will be featured at the show’s Innovation Zone.
- ◆ **EcoSense™ APP-1000 Surfactant:** Nature-derived surfactant that offers effective cleansing properties with excellent foam profile and improved foam stability. Applications include rinse-off hair care, delivering long-lasting color protection, as well as face wash and body wash.



- ◆ **EcoSense™ GL-60 HL Surfactant and EcoSense™ GL-60 HA Surfactant:** These two sophorolipid bio-surfactants create highly desirable mild cleansing products for shampoo, face wash, body wash and leave-on products like body lotion. These products will be featured at the show's Sustainability Corner.
- ◆ **DEXCARE™ CD-1 Polymer:** A new, 2023 BIG™ Innovation Award winning bio-derived deposition aid to boost the shampoo's conditioning effectiveness, allowing for increased versatility and improving the natural content of formulations. This product will be showcased at the show's Innovation Zone.
- ◆ **DOWSIL™ EL-9341 Silicone Elastomer Blend:** A new, low-cyclics silicone elastomer gel that provides a silky, smooth feel and optical benefits.

Additionally, Dow is relaunching the following key ingredients, which are now listed in the catalogue of cosmetic ingredients in China:

- ◆ **DOWSIL™ EL-8050 Silicone Organic Elastomer Blend and DOWSIL™ EL-8052 IH Silicone Organic Elastomer Blend:** Highly compatible, multifunctional elastomer blends that enable unique sensory and texture profiles and can be used for skin care, sun care and color cosmetic applications.
- ◆ **DOWSIL™ ES-5600 Silicone Glycerol Emulsifier:** This emulsifier is suitable for PEG-free formulation systems and is designed to produce stable water-in-silicone emulsions and water-in-oil emulsions with enhanced sensory benefits that can be used in a variety of applications, including skin care, color cosmetics, sun care, antiperspirants/deodorants, BB and CC creams and anti-aging products.

The products featured in the masterclass:

- ◆ **MaizeCare™ Clarity Polymer:** A unique cold water-dispersible, corn-derived bio-based and biodegradable polymer which acts as film-former and gives long lasting performance.
- ◆ **EcoSmooth™ Rice Husk Cosmetic Powder:** This white silica is obtained from rice agriculture by-product feedstock. It provides multifunctional skin benefits such as soft focus, sebum absorption and sensorial benefits.

Dow experts and scientists will be available at in-cosmetics Global 2023 to discuss high-performing technologies, bio-based innovative materials and the fresh, inspiring formulations developed to bring industry-leading ideas to life. To learn more about Dow's innovations, visit the Innovation Zone and Sustainability Corner at the show and meet with Dow experts at booth N90.

[Link to the online article](#)

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## **Great Place to Work® and FORTUNE recognize Dow for 3rd consecutive year among 100 Best Companies to Work For®**

Dow has earned a place on the Great Place to Work® and FORTUNE 100 Best Companies to Work For® list for the third consecutive year, moving up ten places from #99 last year to #89.

Dow is also the only materials science company to be recognized and one of only three manufacturing and production companies to make the list.

To determine the 100 Best Companies to Work For, [Great Place To Work](#) analyzed the anonymous survey responses of more than half a million employees from [Great Place To Work Certified™](#) companies with at least 1,000 employees. Companies also submitted essays describing their efforts to offer generous and innovative support for their people, which were validated against employee survey responses.



"We are proud of this recognition which is based on direct feedback from our employees" said [Jim Fitterling](#), Dow chairman and chief executive officer. "Being recognized again as a Great Place to Work is also an opportunity to continue to reflect on the responsibility we have to our people and our culture going forward, and ensuring we continue to raise the bar on enabling the best possible employee experience at Dow – which in turn enables better outcomes for all our stakeholders."

Making the Fortune 100 Best Companies to Work For list is highly competitive. Survey responses reflect a comprehensive picture of the workplace experience. Honorees were selected based on their ability to offer positive outcomes for employees regardless of job role, race, gender, sexual orientation, work status, or other demographic identifiers.

"This recognition is proof of the commitment from Team Dow to establish a workplace that embraces diversity and inclusion for all," said Alveda Williams, Dow chief inclusion officer. "Our Company thrives because of Team Dow, and in order to realize our ambition, it is necessary to cultivate a culture where everyone can contribute their utmost potential."

Dow has also been recognized by Great Place to Work® with certifications in several other countries around the world including Argentina, Brazil, Canada, China, Colombia, France, India, Mexico, the Philippines, Poland, Saudi Arabia, and South Africa.

Additionally, Dow was named one of the ["World's Most Admired Companies" by FORTUNE in 2023](#), named ["2022 PEOPLE Companies that Care®"](#) for the 3rd consecutive year by Great Place to Work® and PEOPLE, and one of the ["Best Workplaces in Manufacturing & Production™"](#) by Great Place to Work® and FORTUNE in 2022.

[Link to the online article](#)

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## Driving towards a low carbon future with Dow Polyurethanes

**Six ISCC PLUS certifications for Dow Polyurethanes sites reinforce progress on displacing fossil-based feedstocks** *Imagining a fossil-free future for all industries*

From the pillows we rest our heads on to the cars we drive to get from A to B, and the sports surfaces we play on, consumers are increasingly aware of their carbon and circular footprint and actively seek out solutions that can help make their daily activities more sustainable.

Likewise, each stakeholder in the manufacturing value chain is looking for solutions to achieve their own



sustainability goals and provide eco-conscious customers with innovative solutions that contribute to a more sustainable future for all.

### LET'S START AT THE BEGINNING

It all begins with the raw material, in this case, the polyols and isocyanates used to develop the products that feature in rigid and flexible foams. The majority of feedstock currently used to develop these raw materials is fossil-fuel based.

Given that the end products span across industries, from automotive to commercial and domestic appliances, bedding and furniture and footwear, among many others, the opportunity to displace fossil-based feedstock is significant.

To reduce reliance on fossil fuels, we need to consider alternative raw materials developed from bio-based feedstocks from non-competing food sources and circular feedstocks from waste sources.

### ISCC PLUS CERTIFICATION ACCELERATES SUSTAINABILITY FOR THE VALUE CHAIN

Through the implementation of an externally certified mass balance chain of custody method, it is possible to trace the flow of sustainable materials through complex value chains and attribute it based on verifiable bookkeeping.

In fact, Dow currently has six European Polyurethanes (PU) production sites in the Netherlands and Germany with International Sustainability & Carbon Certification (ISCC) PLUS recognition for compliance with rigorous tracking of feedstocks through the mass balance chain of custody.

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***"These six production sites can process sustainable feedstocks from our ISCC PLUS certified crackers to make circular or bio-circular polyols through the mass balance approach. Customers looking for low carbon and circular solutions can put them to use without the need for product re-qualification."***

***- Marcel Moeller, Global Sustainability Director,  
Dow Polyurethanes, CAV & POPG***

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With the early success of the six production sites, we are now striving towards certification of all our Polyurethanes (PU), Chlor Alkali Vinyl (CAV) & Propylene Oxide and Propylene Glycols (POPG) European sites and expanding our offering to other regions.

This is all part of a long-term vision to make our chemistries the material of choice for the future by addressing sustainability along the product lifecycle. Combined with innovation programs to recycle end-of-life PU waste streams, we have a growing number of solutions to help our customers meet their sustainability goals.

Working together, we strive to help customers and end-consumers rest a little easier each night knowing they are sleeping on pillows with a lower carbon footprint.

**[For more information on how we work towards decarbonization in Dow Polyurethanes and to read more about circular and safer material stories, please visit our website.](#)**

**[Link to online the article](#)**

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## Water for all, all for water



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**There is a place for every person to connect to water stewardship. Just as we all depend on water, a sustainable water future depends on us.**

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This year's [World Water Day](#) is focused on accelerating action. We talked with Carrie Houtman, global sustainability director for climate, to find out how Dow is taking action to manage water around four spheres of influence: our direct operations, product offerings, supply chain, and wider watershed health.

### **Why do companies such as Dow care about sustainable water management? What are the business challenges around water resiliency?**

Fresh water supply is becoming an increasing challenge for communities and industry alike. It is essential for us to continue to get better, more efficient and more effective at managing this precious finite resource.

Business continuity is top of mind for us. If we don't have water, we don't have safe and successful and sustainable operations. What motivates us is the need to make sure that we can maintain operational continuity and environmental safety.

There is an inextricable link between carbon management, water and biodiversity. A quote that resonated with me says: "Carbon is the message, and water and nature are the messenger." It illustrates that what we do and don't do as a society to reduce carbon has a direct impact on the availability and quality of water.

It's also very important to think about the trade-offs that are required to balance low-carbon technologies with increasing water scarcity. With few exceptions, lower-carbon technology drives water consumption higher. As we drive forward our plan to [decarbonize and grow](#), we also need to take into account two important factors as we invest – the water needed for these technologies and the impact to the ecosystem. None of the actions that we take to address carbon, biodiversity or water management should be done in a silo.

Our aim is to work with our customers, suppliers, and the communities and ecosystems in which we operate to positively impact the watersheds beyond our fenceline.

## How is water management evolving at Dow?

Over the past several years, we have anchored our water conservation efforts at six key water-stressed sites – selected for their global significance to Dow regarding freshwater intake and production. Today, we are broadening our vision and advancing water stewardship across our enterprise – from supply chains to operations to product offerings. And we are proud of our ongoing [partnerships and collaborations](#) to restore watersheds and protect ecosystems.

Let me share an example of a Dow solution that you might not associate with water savings: food packaging. An estimated 30% of food worldwide is wasted between the farm and the table. In the U.S. alone, the food we waste used 10 trillion gallons of water to produce. Better food packaging and transport packaging technology is [helping reduce spoilage, loss or damage](#), and save an enormous amount of water.

Dow has the expertise and the opportunity to be an industry leader in reducing carbon emissions, water stewardship and ecosystem preservation and restoration, building on the work of our [Valuing Nature Goal](#). Already, there are many examples of where we can have the best of both worlds – low carbon, water savings and healthy ecosystems. Using purposefully [constructed wetlands](#) that serve as a low-carbon approach to water-treatment filtration is just one example.

We also are seeking to work with our tens of thousands of suppliers, to see how we can collaborate to reduce our impacts and dependencies on water resources across the value chain.

## Why is it important for all of us to do our part?

As society moves forward with additional environmental priorities like carbon reduction, we need to treat water like the precious and finite resource it is and remain focused on protecting valuable ecosystems. There are very real tradeoffs, and society finds better solutions when we understand and account for this.

There is a place for every person to connect to water stewardship. Just as we all depend on water, a sustainable water future depends on us.

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