



# VALUED PROPOSITION

Respect for the environment is key to respecting all the markets we serve

BY JESUS ATIAS

**D**ow Chemical Company sprang into being back in 1897 as a brainchild of Canadian-born American chemical industrialist Hebert Henry Dow—an electrochemical pioneer who first gained fame and commercial success in 1891 by introducing a novel way to separate bromides from brine by using electric current.

While his parents had moved from his birthplace of Belleville, Ont., back to the U.S. just a few weeks after Henry’s birth, the company he founded went on to become a household name in the Canadian manufacturing circles a few decades later—starting up its first Canadian manufacturing facility in 1942 in Sarnia, Ont.

Since then, Dow has been proudly operating in Canada continuously for 78 years—developing basic chemicals and plastics used to make a broad range of innovative and technology-based products and solutions in the packaging, industrial, infrastructure, and consumer care industries.

Today, the company employs approximately 1,000 people in Canada at several locations, including its headquarters in Calgary, and at its manufacturing locations in Fort Saskatchewan and Prentiss, Alta., West Hill and Corunna, Ont., and at its Eastern Canada Regional Sales Centre in Toronto.

With net sales of US\$50 billion in 2018, the globally operating company employs 37,000 people at 113 manufacturing sites around the globe—ranking as one of the world’s three largest chemical producers—with its **Dow Packaging and Specialty Plastics (P&SP)** division being its largest business unit.

In addition to being one of the world’s largest producers of polyethylene resins, functional polymers and adhesives, Dow P&SP is a leading innovator and collaborator across the value chain on sustainable applications development and the Circular Economy life-cycle design for plastics.

Dow’s ability to innovate at the intersection of chemistry, engineering and material science has brought solutions that differentiate its customers while positively impacting the world—including lightweight carbon fibers for cars and a broad range of packaging solutions that help make food safer and stay fresh longer.

“*Dow has benefitted from the many opportunities provided by PAC to collaborate and foster conversations around sustainability and innovation with like-minded organizations.*”



With plastic waste widely acknowledged to be one of the most important and pressing sustainability issues of our time, Dow believes that plastic is too valuable to be lost as waste, and that it should be an integral part of a Circular Economy, whereby the value of plastic is retained from design to disposal.

To this end, we are engaged in numerous initiatives to “close the loop” and ensure that no plastic ends up in the environment or is lost to landfill.

Our three-part strategy represents our commitment to finding ways in which we can continue to provide the convenience of plastic, the protection of plastic, the affordability and safety of plastic, while ensuring that none of that plastic ends up in the environment or is lost to landfill.



We are working to keep plastic out of the environment by innovating new applications for recycled plastics to demonstrate that a circular world is not that far out of reach. For example:

- Dow is working with partners around the globe to construct polymer-modified asphalt roads with PCR (post-consumer recycled) plastic.

Recently, the company was named to the *Fortune* magazine’s 2019 *Change the World* list for collaborating with value chain partners to build nearly 100 kilometers of asphalt roads with PCR content across Asia, Europe, North America and Latin America.

The projects have diverted nearly 200 metric tons of plastic, equivalent to 50 million flexible pouches, from becoming litter or entering a landfill.

- Dow is also helping to build structures using self-assembling bricks made out of recycled plastic. (See picture on left)

We’ve built four schools to date in Colombia to create new learning spaces for more than 400 students, while diverting 16 tons of plastic waste. There are currently eight more such schools under construction.

We know that we can’t solve the plastic waste issue alone. It will take all of us—industry peers, associations, governments, non-governmental organizations,

brands, retailers and consumers—working together to make a difference.

We are all partners in this cause to end plastic waste in the environment, which is why Dow is proud to be a founding member of the **Alliance to End Plastic Waste (AEPW)**.

This newly-formed organization has jointly committed more than US\$1 billion—with the goal of raising another \$1.5 billion over the next five years—to develop and scale solutions that manage plastic waste and promote post-use solutions for plastic.

Implementing a four-part strategy that focuses on infrastructure, innovation, education and clean-up, AEPW is developing scalable solutions that will minimize and manage plastic waste, while promoting solutions that will drive a circular economy for plastic.

Dow is also a founding investor in **Circulate Capital's** \$100-million **Ocean Fund**, which is the first fund and incubatory focused specifically on preventing ocean plastic—particularly in South Asia.

Many countries in that part of the world have been identified as contributing disproportionately to ocean plastic pollution—primarily because they lack the critical waste infrastructure to manage the problem.

Working with our partner **UPM Biofuels** in Europe, Dow is turning waste residue from paper production into naphtha, creating an alternative and renewable feedstock for plastics production.

Sourced from sustainably managed forests, this waste product is extracted as a residue when separating wood fiber for pulp production.

Naturally, Dow is also proud of its status as one of the original founders of **PAC Packaging Consortium**.

While much has changed in the 70 years since Dow supported the creation of PAC, the organization's value to the Canadian packaging community has remained as relevant as ever.

Over the years, PAC has offered a wide range of opportunities for innovation, networking and training, and Dow has benefitted from the many opportunities provided by PAC to collaborate and foster conversations around sustainability and innovation with like-minded organizations.

Collaboration across leading organizations such as PAC in the packaging value chain is more important than ever as we continue to innovate packaging solutions that move us to-

wards a Circular Economy.

One of those exciting new product innovations is **AGILITY CE**, which is the first of Dow's new polyolefins portfolio to incorporate a percentage of post-consumer plastic waste.

Manufactured for use in shrink films as secondary packaging for transporting packs of cans or bottles, the material's formulation consists of a low-density polyethylene (LDPE) compound incorporating up to 70-percent post-consumer plastic waste, while ensuring the consistency of the material and functionality for its final application.

By any measure, Dow is genuinely passionate about advancing recycling capabilities, designing products for recyclability, innovating recycling technologies, and finding new ways to incorporate recycled content into the resins we sell—with the single ultimate aim of increasing the amount of plastic recycled and reused worldwide.

*Jesus Atias is sustainability manager for North America at Dow Packaging and Specialty Plastics in Midland, Mich.*

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