



**Sustainability  
Report**  
**2019**





# Table of Contents

## Introduction

Contents .....	2
About This Report .....	3
Message from Our Chief Sustainability Officer .....	4
Q&A with Our Chairman and CEO .....	5
New Targets.....	9

## Our Business

Company Highlights .....	10
Business Overview .....	12

## Sustainability Overview

Sustainability Priorities .....	17
Focus Areas.....	18
2025 Sustainability Goal Updates .....	23
Alignment to UN Sustainable Development Goals .....	25

## Environmental Impact

Management Approach.....	26
Summary Metrics .....	27
Materials .....	28

Energy .....	30
Emissions .....	32
Water .....	35
Waste.....	39

## Our People

Approach .....	41
Inclusion & Diversity .....	42
Benefits .....	46
Learning & Development .....	48
Talent Attraction & Management .....	49
Employee Health & Safety .....	52

## Global Citizenship

Focus Areas.....	60
Advancing Sustainable Solutions.....	61
Building Inclusive Communities .....	62
Developing Tomorrow’s Innovators .....	63
Empowering Sustainable and Resilient Communities.....	64
Engaging for Impact.....	65

## Our Supply Chain

Approach.....	66
Transportation Stewardship .....	68
Procurement/Logistics .....	70

## Governance

Values .....	73
Ethics.....	74
Oversight .....	77
Defined Benefit Plan Obligations .....	78
Risk Management .....	79
Materiality .....	83
Stakeholder Engagement.....	85

## Additional Information

Report Information .....	88
Independent Assurance Statement.....	89
GRI Content Index.....	91





## About This Report

The 2019 Sustainability Report is Dow's 17th annual report. GRI 102-52  
This report reflects the Company's performance for the calendar year ended December 31, 2019. This Sustainability Report is a combined report being filed by Dow Inc. and The Dow Chemical Company and its consolidated subsidiaries ("TDCC" and together with Dow Inc., "Dow" or the "Company"). GRI 102-50

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards Comprehensive option. GRI 102-54  
The Comprehensive option requires that the Company report all of the General Disclosures described in the GRI Standards as well as all of the Specific Disclosures related to issues material to us. This document also serves as Dow's UN Global Compact Communication on Progress for 2019. Mary Draves, chief sustainability officer and vice president, Environment, Health & Safety, provides formal internal approval of the report followed by review by the Environment, Health, Safety & Technology Committee of the Board. GRI 102-32 We have also sought independent assurance to verify compliance with the GRI standards. See the **Independent Assurance Statement** near the end of this report.

Additional reporting that may be of interest to the reader can be found at **corporate.dow.com**:

- Downloadable version of **this report**
- Dow's most recent **previous report**, covering the year ending December 31, 2018, and archive of **earlier annual sustainability reports** GRI 102-51
- **2019 Annual Report**
- **2019 Dow Form 10-K**
- **2020 Proxy Statement**
- **2019 Shine Inclusion Report**

GRI 102-53

Thank you for your interest in our report. We welcome your questions, comments and feedback. You may contact us at:

**Jennifer Princing**  
Dow Sustainability Reporting  
**j.l.princing@dow.com**  
989-496-7154

LEADERSHIP MESSAGES

## Message from Our Chief Sustainability Officer

### Delivering on Our Commitments

Find out how we  
continue to make  
positive impact in our  
focus areas of Circular  
Economy, Climate  
Protection and Safer  
Materials.

---

### Mary Draves

Chief Sustainability Officer and  
Vice President of Environment,  
Health & Safety

---





# Q&A with Our Chairman and CEO

GRI 102-14



## Jim Fitterling

Chairman and  
Chief Executive Officer

## Helping Lead the Transition to a Sustainable Future

Chairman and CEO Jim Fitterling shares how Dow is accelerating its sustainability strategy to meet tomorrow's challenges, and how newly announced sustainability targets will help drive us forward.

**Q As you look ahead – 5, 10, 20 years down the road – what do you see as Dow's main sustainability challenges?**

**A** The greatest sustainability challenge for Dow is ensuring that our actions continually reflect the world's sustainability needs. In every way, we need to align our business with the world around us ... and provide leadership where we can.

The next decade will be critical in how we respond to environmental challenges and limit global temperature rise. Making the most informed, sustainable and systemic decisions now will ensure we have clean air, clean water, a stable climate and safe food tomorrow. We think a sustainable future is attainable, but it will take collaboration across all sectors of society, including business.

That's why we've built Dow's sustainability strategy on three focus areas that are not only critical to our business but where we believe we can make a difference: climate protection, advancing a circular economy ... and innovating safer materials for our world. These areas get right to the heart of our license to operate ... plus they represent substantial opportunities to grow value for Dow and society.

The challenge going forward is to remain focused on addressing these big, critical and complex issues – like climate change and ocean waste – that demand answers. And then find a way to use our scale, science and collaborations to help.

**Q So, you're not just talking about inside-the-fenceline solutions?**

**A** Implementing sustainability solutions inside the fenceline is important. And we're working on those and we'll continue to find ways to make our manufacturing facilities more efficient and aligned with our larger sustainability efforts.

But increasingly we're thinking bigger and more broadly. We want to drive transformational change. Our ambition is to be the most innovative, customer-centric, inclusive and sustainable materials science company in the world. And we can't do that if we only focus on inside-the-fenceline solutions.

So, we're taking a long look throughout our value chain. Our approach to creating a more circular economy is a great example. We want to close the loop on plastic waste by ensuring our products have the potential to be recycled. But that's just part of the equation. To be truly successful, we also need to help find a way to stop the waste in the first place by ending the linear "take-make-and-dispose" economy that's so common today.

We can't do that by ourselves. That's why we're collaborating with value chain partners, governments, and other stakeholders across the globe for waste management solutions and advanced recycling solutions that can be tested and scaled.



# Q&A with Our Chairman and CEO



**Jim Fitterling**  
Chairman and  
Chief Executive Officer

**Q Dow just announced new sustainability targets. How do these new sustainability targets help address our sustainability priorities and move us forward?**

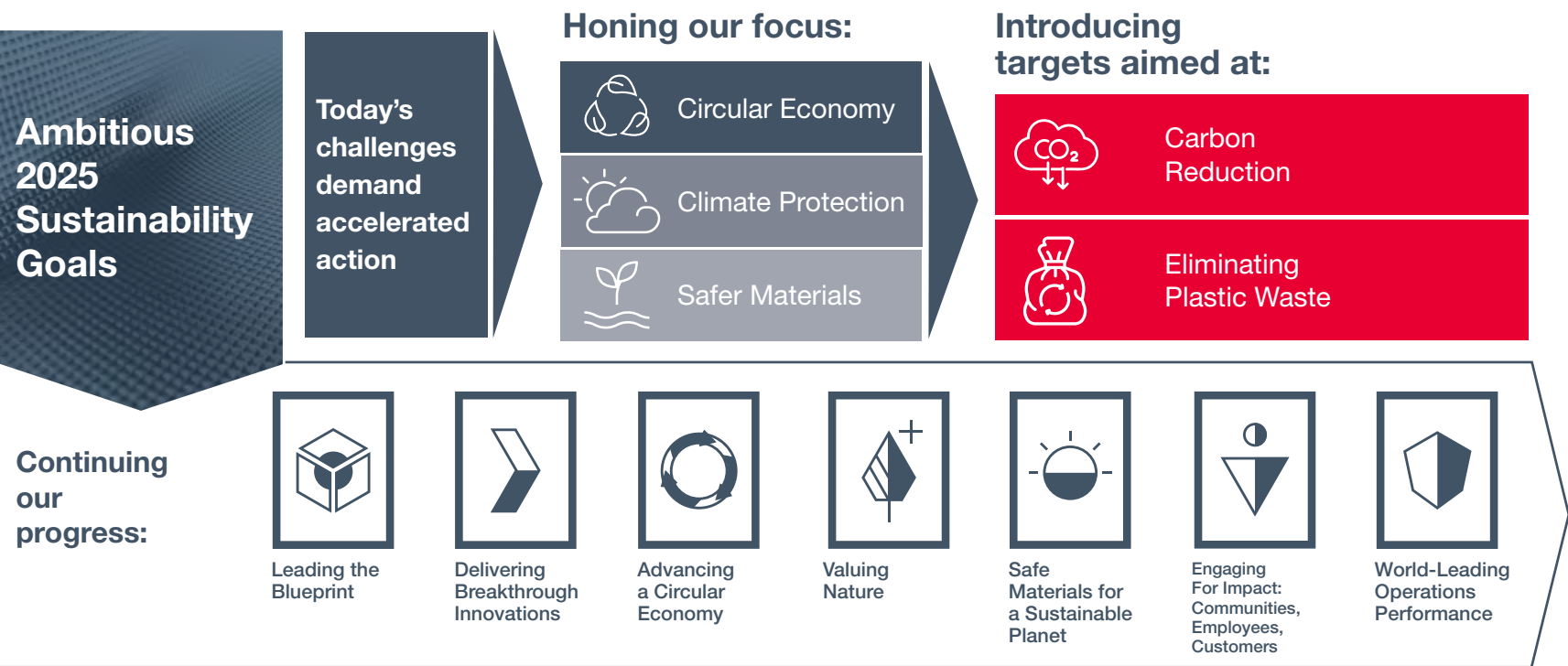
**A** The new targets we just announced are all about advancing a circular economy and climate protection. The targets build on our commitment to lead the transition to a more sustainable future by putting Dow on a path to achieve carbon neutrality and eliminate plastic waste in our environment. You can read more about our targets [here](#).

**Q Talk a little about Dow’s path to realizing these new targets. How will Dow get there?**

**A** These targets are ambitious. Realizing them is going to be challenging. It will take investment, innovation and collaboration, and it will require a real step-change in how we work. For example, meeting our commitment to reduce our 2030 annual emissions by 5 million metric tons from our current baseline, which is about a 15% reduction, will only be possible through technological innovation.

Dow already has had a lot of success in reducing emissions. In the past 15 years, we’ve reduced our overall greenhouse gas emissions by 15%. Dow is among the top 25 global corporations in terms of renewable power use. We have contracts for wind, solar, biomass, landfill gas and hydropower. In fact, Dow is on track to achieve our 2025 Sustainability Goal target of sourcing 750 MW of renewable power capacity. But to achieve the reliability and efficiency we need to meet our future energy needs and reduce our emissions, we’ll need new solutions that we haven’t designed yet.

To meet our targets, we’re accelerating our work to implement and advance technologies to manufacture our products using fewer resources. For example, at our Plaquemine site in Louisiana, we are retrofitting a mixed-feed cracker to produce propylene with our proprietary fluidized catalytic dehydrogenation technology. The project will reduce energy use and greenhouse gas emissions by up to 20% versus conventional technology. We also will work to increase the share of our products that enhance environmental performance for our customers and society.





# Q&A with Our Chairman and CEO



**Jim Fitterling**

Chairman and  
Chief Executive Officer

**Q Has the COVID-19 pandemic changed Dow's immediate focus on sustainability?**

**A** Not at all. I've seen some people predict that sustainability efforts worldwide may suffer setbacks as organizations reprioritize. But our view is that our work on sustainability simply cannot wait. We are leaning in.

If anything, this pandemic has amplified how important it is to put our corporate sustainability principles into action. It's demonstrated how interdependent we all are, and how we all depend on one Earth for our prosperity. And it's showcased the role business can play in solving real-world challenges.

More than anything, it's underlined how meaningful collaborations are necessary to tackle tough challenges. A crisis of this magnitude needs everyone working together, and business plays an important role. I couldn't be prouder of Team Dow and how we've responded to the needs of our customers, suppliers, communities and government partners to supply materials for life-critical applications, such as hand sanitizer, disinfectants, IV bags and personal protective equipment.

When we emerge from this pandemic, I hope we all carry forward the lessons of how sharing our skills, compassion and know-how makes society stronger and our collective actions more effective – whether we face a pandemic or a global challenge such as climate change.

**Q Why is Dow rolling out these targets now, especially with the immediate business challenges of the COVID-19 pandemic?**

**A** Even as we operate business in this new reality, we can't lose sight of challenges such as climate change and plastic waste. These are issues that affect all of us.

In fact, we can learn from the high levels of collaboration and information-sharing that we're seeing to meet the challenges of this pandemic and apply that mindset to sustainability.

The world needs leadership in environmental sustainability. As a global materials science company, we have the responsibility to help reduce carbon emissions and use our science to lead into a carbon-neutral future.

Our materials science expertise can help brand owners design and manufacture more sustainable, circular-driven products. And because of our scale, we also can lead collaborations that drive positive value for the environment, society, and our business.

Setting aggressive targets like this help us demonstrate and drive our commitment. They challenge us to use our innovation and expertise to find scalable and replicable business solutions that will support systematic, sustainable transformation.



# Q&A with Our Chairman and CEO



**Jim Fitterling**

Chairman and  
Chief Executive Officer

**Q You often talk about how the issues of climate protection and a circular economy are intertwined. How do Dow's targets around plastic waste also help address carbon neutrality?**

**A** They're definitely inter-related. A circular economy — keeping materials in use — can reduce emissions and plastic pollution. Research shows that recycling a metric ton of plastic can reduce carbon emissions by 1-3 metric tons of carbon dioxide equivalents, compared to virgin plastic production.

Plastics, too, are an indispensable part of a lower-carbon economy. Think about the auto industry alone — where lighter-weight plastics have helped increase auto fuel efficiency by 29% while decreasing related greenhouse gas emissions by 23%. Plastics also provide the world's growing population with more access to fresh foods and safe drinking water while reducing food spoilage and waste. That translates directly into lower carbon emissions in the supply chain, plus a better and healthier quality of life for people.

In that regard, plastics have been a tremendous positive for mankind. But there's a negative side to this success — and that's plastic waste. It not only is harming our Earth's biosystems, it's doing so at a steep economic cost. The amount of plastic the world wastes every year has an inherent raw material value ranging from \$80-120 billion.

As a society globally, we lack the infrastructure to deal with the amount of waste that we generate, and that's what we're trying to tackle. We're working with and standing up organizations like the Alliance to End Plastic Waste to invest in proof-of-concept projects to drastically improve waste collection, particularly in South Asia where the issue is so critical. We're also looking for ways to create demand for recycled plastics. In fact, Dow was named to Forbes' 2019 "Change the World" list of companies for our use of recycled plastics in roads. We've worked with partners across the world to make polymer-modified asphalt roads with recycled plastic.

**Q Do you think that Dow will meet its ambition to become the most sustainable materials science company?**

**A** Absolutely. We're going to be carbon neutral. We're going to close the loop on water. We're going to reduce our energy intensity. We're going to use renewable or recycled feedstocks instead of using virgin feedstocks from a natural gas well. And we're working on projects that are advancing these goals today.

The many projects you'll read about in our 2019 Sustainability Report are based on decades of practical experience in sustainability. We are currently on our third set of sustainability goals — and from each set of goals, we've improved, we've learned and we've decided to challenge ourselves even further.

I have complete faith that Team Dow will find the answers to meet our targets — and, more importantly, advance the solutions we need to achieve the sustainable future we desire.



INTRODUCTION

# New Targets



Learn more about our approach to [eliminating plastic waste](#) and [reducing carbon emissions](#).

Find out more about our 2019 progress against our [2025 Sustainability Goals](#).



## Accelerating Our Sustainability Agenda

With the publication of this report, we are announcing new, progressive, multi-decade targets around advancing a circular economy and climate protection. Building on our 2025 Sustainability Goals, these targets are designed to put us on a path to achieve carbon neutrality, eliminate plastic waste in our environment and increase our positive impacts for our customers, society and our business. We understand that achieving these ambitious targets will take commitment, investment, innovation and collaboration.

### New Targets

Today, more than ever, the world needs leadership in environmental sustainability. That is why we are focusing on reducing our impact on the environment by working simultaneously on two closely linked issues: **reducing carbon emissions** and **eliminating plastic waste**.

#### Climate Protection

We are committed to implementing and advancing technologies to manufacture our products using less resources.

#### Advancing a Circular Economy

We set these ambitious targets around a central idea: to make the world’s plastic waste problem a thing of the past.

**Protect the Climate** >>

**Stop the Waste** >>

**Close the Loop** >>



OUR BUSINESS

Company Highlights



2019 NET SALES

\$43B



EMPLOYEES

~36,500



Company Profile GRI 102-1, GRI 102-5, GRI 102-7, GRI 201-103

At Dow, our people use science and collaboration to create what matters most to our customers, society and the planet. Our ambition to be the world’s most innovative, customer-centric, inclusive and sustainable materials science company drives best-in-class performance and a culture where new ideas thrive. We combine global breadth, asset integration and scale, focused innovation and leading business positions to achieve profitable growth. Our portfolio of plastics, industrial intermediates, coatings and silicones businesses delivers a broad range of differentiated, science-based products and solutions in high-growth market segments such as packaging, infrastructure and consumer care.

Dow Inc. had 741,678,966 shares of common stock outstanding at January 31, 2020.





OUR BUSINESS

# Company Highlights



Dow Inc. begins trading on the NYSE after the Materials Science Division separates from DowDuPont



## 2019 Business Highlights

In 2019, Dow delivered net sales of \$43.0 billion, down 13% from \$49.6 billion in 2018.

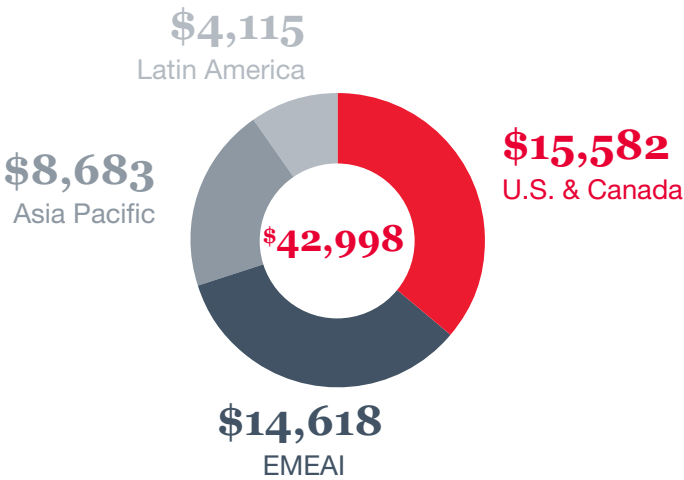
Financial Highlights (Millions of Dollars) GRI 102-7, GRI 201-1

Economic value generated, distributed and retained	2019	2018 <sup>1</sup>
Net sales	\$42,951	\$49,604
Pro forma net sales	\$42,998	\$49,852
Operating costs	\$31,534	\$35,774
Wages/benefits	\$5,322	\$5,708
Payments to providers of capital	\$3,098	\$4,862
Payments to governments	\$1,386	\$2,003
Community investments	\$34 <sup>2</sup>	\$41
Economic value retained	\$1,758	\$1,216
Total debt	\$16,996	\$19,889
Total equity	\$14,094	\$33,621
Total capitalization	\$31,090	\$53,510

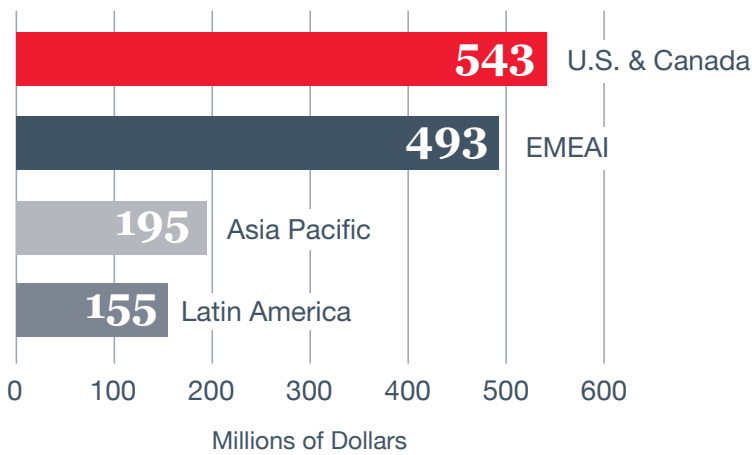
<sup>1</sup> Applicable values for 2018 have been updated in accordance with the Current Report on Form 8-K for Dow Inc. and TDCC, filed with the U.S. Securities and Exchange Commission on July 25, 2019, which recast portions of the TDCC Annual Report on Form 10-K for the year ended December 31, 2018 to reflect the results of Dow and its consolidated subsidiaries, after giving effect to the distribution to DowDuPont of TDCC's agricultural sciences business and specialty products business and the receipt of DuPont's ethylene and ethylene copolymers businesses (other than its ethylene acrylic elastomers business) from the closing of the Merger on August 31, 2017.

<sup>2</sup> Includes charitable cash and in-kind donations and represents only a portion of the total value of Dow community contributions, which also includes volunteer time as well as other forms of financial support.

Pro Forma Net Sales by Geographic Region (Millions of Dollars)



2019 Taxes (Payments to Governments)





OUR BUSINESS

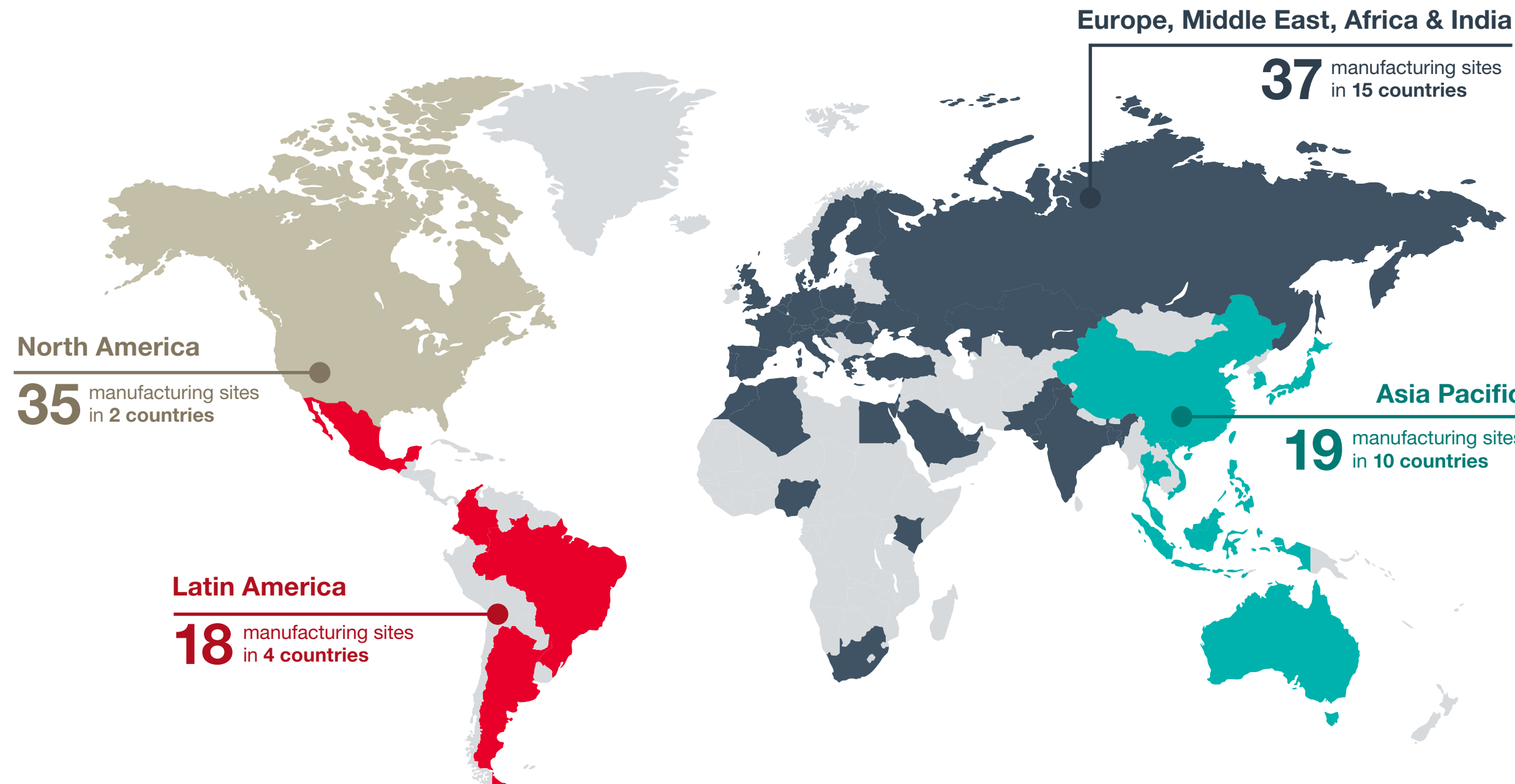
# Company Highlights

**109**  
manufacturing sites  
in 31 countries

**12**  
Innovation Centers in  
10 countries on 4 continents

## Location of Operations GRI 102-3, GRI 102-4

With global headquarters in Midland, Michigan, Dow operates 109 manufacturing sites in 31 countries. Major manufacturing operations are located in Argentina, Brazil, Canada, China, Germany, The Netherlands, Spain, Thailand, United Kingdom, and the United States.





## OUR BUSINESS

# Business Overview

## Innovating Breakthrough, Sustainable Products

Plant-based emulsions that enable paints with higher renewable content. Reworkable silicone gels that allow for easy disassembly so smartphones can be repaired or their components recycled. Polyols made from end-of-life mattresses that find new life in construction applications. These new Dow products were recognized as breakthrough, sustainable innovations by Business Insider in 2019.

[LEARN MORE](#)

## Business Segments and Products GRI 102-2, GRI 102-6

Dow combines chemistry, biology and physics to create innovative products in several key markets. We work with experts in almost every industry to help solve materials science challenges that help advance our customers' business goals and contribute to a more sustainable world. Our portfolio includes six global businesses that are organized into the three following operating segments:



## 2019 Pro Forma Net Sales

Results for the first quarter of 2019 and periods prior are prepared on a pro forma basis. Results for the second quarter of 2019 and subsequent periods are prepared on an as-reported basis. 2019 Corporate Segment pro forma sales were \$343MM.



OUR BUSINESS

# Business Overview



## Packaging & Specialty Plastics

Our Plastics franchise consists of two highly integrated global businesses:





OUR BUSINESS

# Business Overview

## Industrial Intermediates & Infrastructure

Industrial Intermediates & Infrastructure consists of two customer-centric global businesses that develop important intermediate chemicals that are essential to manufacturing processes, as well as downstream, customized materials and formulations that use advanced development technologies.





OUR BUSINESS

# Business Overview

## Performance Materials & Coatings

Performance Materials & Coatings includes industry-leading franchises that deliver a wide array of solutions into consumer and infrastructure end-markets. The segment consists of two global businesses:



# Sustainability Priorities



## Partnering to Solve Global Challenges

The world is changing. As populations increase, consumption patterns change and resources diminish, societies across the globe need to find new ways to balance economic progress with sustainability. One of the great challenges of our time is reconciling the needs of a growing population for food, clean water and energy with our planet’s limited resources. We believe a sustainable future is attainable, but only if we all come together to drive forward science- and technology-based solutions to address global challenges.

We are doing this by connecting and collaborating to find new options for materials that make life better for everyone. Our 2025 Sustainability Goals continue to guide us in driving meaningful change and scaling business solutions that will help lead the transition to a sustainable planet and society, and our World-Leading Operations performance is foundational to our progress.

## Our Focus Areas

Our sustainability efforts are focused on three areas that are critical to our business and where we believe we can make a difference.



**Circular  
Economy**





**Climate  
Protection**





**Safer  
Materials**





# Focus Areas



## Advancing a Circular Economy



Because of our leadership position in manufacturing and materials technology, as well as our global reach across many sectors, we have the opportunity to take a leading role in supporting the development and implementation of the circular economy, taking into account a product’s lifecycle – from creation to use to disposal – in everything we do and create. As we transform to a circular economy, we’re thinking about waste as a resource and investing in new product technology, value chain partnerships, business models, logistics and infrastructure to help discover and scale sustainable solutions.

### Our Successes



#### Innovating Sustainable Packaging

Learn how we’re designing products for recyclability.



#### Partnering to Recycle Wastewater

See how we’re working with our partners to reuse and recycle water so there’s more for communities.



#### Working Across the Value Chain

Find out how we’re taking steps to put an end to mattress waste.





# Focus Areas



## Advancing a Circular Economy



### Working to Create a Circular World for Plastic

Plastics have revolutionized the lives of people everywhere by helping make goods lighter weight and thus saving emissions, improving health and hygiene, extending the freshness of food and dramatically reducing food waste. However, insufficient global waste management and recycling infrastructure and low recycling rates have resulted in too much plastic being lost to waste and entering our natural environment.

### Our Approach

As the world’s largest producer of plastics, we are committed to find ways in which we can continue to provide the convenience, protection, affordability and safety of plastics, while also ensuring that none of the plastic ends up in the environment or is lost to the landfill.

In the past year, Dow has engaged in more than 100 projects to promote a more circular economy for plastics, including those described below.

#### Keeping Plastic Out of the Environment



**Hefty® EnergyBag® Program:** Teaming up with Keep America Beautiful, Reynolds Consumer Products to collect hard-to-recycle plastics at curbside and convert them to resources such as fuel **>400,000 households** **458 tons to U.S. waste**



**Recycled Plastic Roads:** Collaborating across the globe to construct polymer-modified asphalt roads with post-consumer recycled plastic



**Project MASARO:** Combining education, technology and infrastructure to turn waste into valuable materials for local communities in Indonesia



#### Increasing Impact Through Partnerships



Founding member of the Alliance to End Plastic Waste, an initiative to accelerate efforts to drive innovation, provide much-needed resources and take decisive action to put an end to plastic waste in the environment

**Circulate Capital Ocean Fund:** Founding investor in **\$100MM** effort to incubate and finance companies and infrastructure that prevent ocean waste



**#PullingOurWeight:** Working with the Ocean Conservancy, Dow employees, customers and other partners are cleaning up trash in their communities **>18,000 participants** **175 cleanups globally**



#### Delivering Circular Economy Solutions

**Fuenix Ecogy Partnership:** Partnership for the supply of a new feedstock made from recycled plastic waste to produce new Dow polymers



**UPM Biofuels Partnership:** Partnering to commercialize a plastic for packaging made from **a bio-based renewable feedstock**



**RecycleReady Technology:** Worked with Kellogg’s Bear Naked® granola division and Berry Global to develop the **first fully-recyclable stand-up barrier pouch** made for food packaging





# Focus Areas



## Contributing to Climate Protection



Addressing climate change is one of the major challenges to achieving a sustainable future. As both a major user of energy and a producer of technologies that are essential to a lower-carbon economy, we have a responsibility to act. Within our own operations, we are optimizing efficiency, investing in renewable energy sources and innovating new low-emission production processes. We also are collaborating with our customers to produce products that contribute to a lower carbon footprint.

### Our Successes



#### Optimizing Our Facilities and Processes

We continue to look for ways to improve energy and emissions savings in our operations.



#### Increasing Renewables in Our Purchased Power Mix

We are the No. 1 user of clean energy in our industry.



#### Evaluating Investments in Carbon Capture, Usage and Storage (CCUS)

CCUS is a critical transitioning technology that will assist in the transition to a lower-carbon economy while new low-emission technology is developed.



#### Developing Low-Carbon Technologies for Emission Reductions

We're working to innovate next-generation technologies that could potentially enable us to make a step-change in reducing our emissions.



#### Deploying Materials to Help Reduce Emissions for Customers and Industries

We're collaborating with the International Olympic Committee to harness the power of sports and science to accelerate the adoption of lower-carbon technologies across various industry value chains.





# Focus Areas



## Highlight

We're planting seeds to slow climate change.

Climate change has serious consequences for the global economy and people's health and well-being. We also support the Paris Agreement and are committed to achieving its goal of keeping global temperature rise well below 2°C, and to pursue efforts to limit the increase to 1.5°C.

## Our Climate Strategy: Reducing Our Impact GRI 201-2

We aspire to become carbon neutral\* by 2050. Through our 2025 Goals, we are seeking to keep our absolute greenhouse gas (GHG) emissions below our 2006 baseline, although we continue to grow our company globally. In addition, we are committed to obtaining 750 MW of our power from renewable resources by 2025. In the past 15 years, we have reduced our overall GHG emissions by 15%.

While we have made progress with our 2025 Sustainability Goals, we are taking bigger and bolder actions to lesson our impact moving forward. In June 2020, we announced a new, multi-decade carbon target to reduce our net annual carbon emission by 5 million metric tons versus our 2020 baseline, which is approximately a 15% reduction. [Learn more.](#)

### Our Approach

The Executive Sustainability Team ensures progress is made against our 2025 Sustainability Goals. In addition, our carbon focus group aligns senior leadership from across our businesses and functions, and drives all aspects of our initiatives around carbon emissions. Specific steering teams under the carbon focus group's direction address all aspects of Dow's strategy to achieve these objectives. Read more about our [risk management strategy](#).

### Partnering for Progress

In addition to optimizing our own operations, we are working on next-generation GHG management technologies and strategies for mitigating climate change. Collaboration in this space is essential, as four-fifths of our Scope 1-3 emissions are indirect. As both a major user of energy and a producer of technologies that are essential to a lower-carbon economy – and as the No. 1 user of clean energy in our industry – we can bring a unique perspective. Among our actions:



\* Scopes 1, 2, 3, plus product benefits



# Focus Areas



## Innovating Safer Materials



Did You  
Know?

48%

OF SALES are from  
products that address  
world challenges

76%

OF R&D PROJECTS  
address world challenges

*2019 results based on SCl reporting*

A sustainable future can't be achieved without considering chemistry – the foundation upon which countless products are built. More than 96% of the world's manufactured goods are enabled by chemistry, and the potential of chemistry to bring social and environmental value is limitless. We are committed to innovating sustainable materials and improving the way the world understands and considers science in decision-making to maximize benefits to businesses, society and the planet.

**Read more** about how we continually look for improvement opportunities at each stage of the life cycle of our products.

### Our Successes



#### Innovating Sustainable Materials

We're using our materials science to help innovate more sustainable solutions for our customers and the planet.



#### Advancing Product Safety

Find out how we're collaborating with diverse stakeholders to advance product safety information.



#### Promoting Open and Transparent Chemistry

Discover how we're working with value chain partners to advance product safety and transparency.





# Goal Updates



## 2025 Sustainability Goals

In 2015, we announced our 2025 Sustainability Goals, a set of strategic 10-year goals that aim to expand our positive impact around the world by driving unprecedented collaborations to facilitate the transition to a sustainable planet and society. These goals, the Company’s third set of sustainability-related goals since 1995, build upon its previous two decades of goals. Our 2005 Environment, Health & Safety Goals resulted in \$5 billion in waste, water, energy and safety-related savings. Our 2015 Sustainability Goals focused on providing more sustainable products and solutions addressing global challenges related to food waste and security, energy, sustainable water supply and health.

## Our Sustainability Journey

Our 2025 Sustainability Goals support progress against our focus areas of Climate Protection, Circular Economy and Safer Materials. We’ve also continued to refine the goals and targets as our business and the expectations of our stakeholders has changed.

**2025 Sustainability Goals**  
Dow’s Thought Leadership and Actions

**2015 Sustainability Goals**  
Product Solutions to World Challenges

**Dow’s Blueprint**  
Changes in technology, public policy and the value chain that lead human society toward sustainability

**Dow’s Handprint**  
Products and services that help customers meet their challenges

**2005 EH&S Goals**  
Journey to EH&S Excellence

**Dow’s Footprint and EH&S Culture**  
World-leading operations and supply chain performance



SUSTAINABILITY  
OVERVIEW

# Goal Updates



## 2025 Sustainability Goal Updates

Nearing the halfway point of our 2025 Sustainability Goals, we have made significant progress.



SUSTAINABILITY  
OVERVIEW

# Alignment to UN SDGs



## Alignment to UN Sustainable Development Goals (SDGs)

Dow’s 2025 Sustainability Goals were developed at the same time and with an awareness of the process for defining the UN SDGs. The UN SDGs help us identify several different paths to support business goals and our ambition to be the most sustainable materials science company in the world. At some level, our 2025 Goals impact each of the 17 UN Development Goals. Dow’s high-level alignments to the SDGs are described here.

SDGs that are an opportunity for Dow to lead

3 GOOD HEALTH AND WELL-BEING

6 CLEAN WATER AND SANITATION

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

14 LIFE BELOW WATER

SDGs that are an opportunity to engage and contribute

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

14 LIFE BELOW WATER

15 LIFE ON LAND

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

17 PARTNERSHIPS FOR THE GOALS

SDGs that present business opportunities and risks

BUSINESS OPPORTUNITY

1 NO POVERTY

2 ZERO HUNGER

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

17 PARTNERSHIPS FOR THE GOALS

BUSINESS RISK

3 GOOD HEALTH AND WELL-BEING

10 REDUCED INEQUALITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

17 PARTNERSHIPS FOR THE GOALS

SDGs that Dow currently negatively impacts

3 GOOD HEALTH AND WELL-BEING

6 CLEAN WATER AND SANITATION

8 DECENT WORK AND ECONOMIC GROWTH

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

14 LIFE BELOW WATER

25



## ENVIRONMENTAL IMPACT

# Management Approach



## ENVIRONMENT, HEALTH AND SAFETY POLICY

At Dow, protecting people and the environment is a part of everything we do and every decision we make. Each employee has a responsibility in ensuring that our products and operations meet applicable government or Dow standards, whichever is more stringent. Our goal is to eliminate all injuries, prevent adverse environmental and health impacts, reduce waste and emissions, and promote resource conservation at every stage of the life cycle of our products. We will report our progress and be responsive to the public.

## A Commitment to World-Leading Environmental Performance

GRI 305-103, GRI 307-103

Dow is committed to world-class environmental, health and safety (EH&S) performance, as demonstrated by industry-leading results, a long-standing commitment to Responsible Care® and a strong commitment to achieve the Company's 2025 Sustainability Goals.

To meet the Company's public commitments, as well as the laws and government regulations related to environmental protection and remediation to which its global operations are subject, Dow has well-defined policies, requirements and management systems.

## Managing EH&S Performance

Dow's EH&S Management System (EMS) defines the "who, what, when and how" needed for the businesses to achieve the Company's policies, requirements, performance objectives, leadership expectations and public commitments. To ensure effective utilizations, the EMS is integrated into a company-wide management system for EH&S, Operations, Quality and Human Resources.

### Responsible Care

Dow believes third-party verification and transparent public reporting are cornerstones of world-class EH&S performance and building public trust. Numerous Dow sites in Europe, Latin America, Asia Pacific, the United States and Canada have received third-party verification of Dow's compliance with Responsible Care and with outside specifications such as ISO-14001. Dow continues to be a global champion of Responsible Care and has worked to broaden the application and impact of Responsible Care around the world through engagement with suppliers, customers and joint venture partners.

### Waste and Emissions Inventory

Dow manages environmental data for reporting with a Waste and Emissions Inventory system. All emitting manufacturing sites globally record their emissions into the system annually. The data is reviewed at the facility level and then by global coordinators before being aggregated for corporate reporting.



# Summary Metrics



## Summary Metrics

Metric	Unit	2018	2019
Energy intensity	Btu per lb of production	4,756	4,711
Scope 1 GHG emissions	Millions of metric tons CO <sub>2</sub> e	28.7	27.6
Scope 2 GHG emissions	Millions of metric tons CO <sub>2</sub> e	6.82	6.05
Combined Scope 1 and 2 GHG intensity	Lb of CO <sub>2</sub> e per lb of production	0.76	0.74
Scope 3 GHG emissions	Millions of metric tons CO <sub>2</sub> e	76.3	91.4
Ozone-depleting compound emissions	Metric tons as CFC-11e	1.74	1.51
Nitrogen oxide emissions	Metric tons	19,864	18,534
Sulfur oxide emissions	Metric tons	2,614	2,573
Volatile organic compounds (VOC) emissions	Metric tons	7,583	7,534
Chemical emissions to air and water	Metric tons	12,625	13,914
Emissions of priority chemicals to air and water	Metric tons	258	248
Freshwater intake	Millions of cubic meters	2,040	2,075
Wastewater	Millions of metric tons	130.6	129.3
Wastewater intensity	Lb of wastewater per lb of production	2.80	2.83
Waste	Millions of metric tons	1.44	1.32
Waste intensity	Lb of waste per lb of production	0.031	0.029



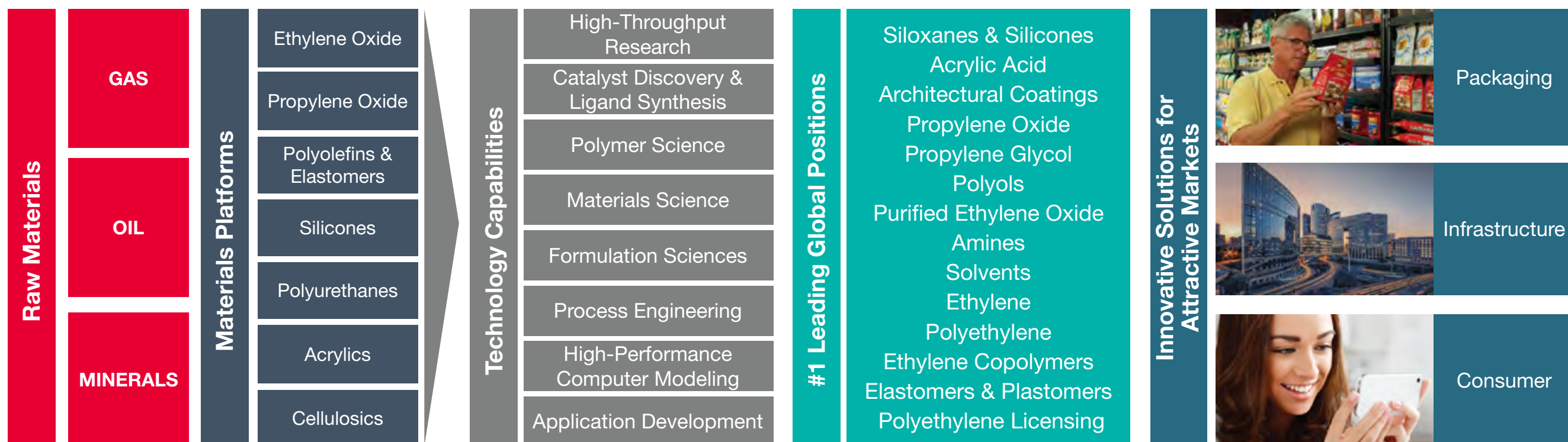
# Materials



## Materials Used

The Company operates in an integrated manufacturing environment. Basic raw materials are processed through multiple operations to make products that are sold to external customers and used as intermediates to further downstream Dow operations. The major raw material stream that feeds the production of the Company's finished goods is hydrocarbon-based raw materials.

## Dow's Integrated Manufacturing Environment





# Materials



Did You  
Know?

In 2019, businesses  
achieved raw  
material savings of

**\$65.3MM**

## Raw Material Efficiency

Total quantity of raw material is not aggregated across the corporation, as it would not provide a metric that would drive improvements. We do track raw material efficiency as one of the metrics that comprise the Environmental Stewardship Index, one of the four indices tracked under our **World-Leading Operations Performance Goal**. To assess the raw material efficiency index, each of the company's business units determines a relevant material efficiency metric, sets annual commitments that translate into monetary savings, and reports regularly on progress to business and corporate leadership.

Measuring material efficiency provides a direct driver to improve activities such as:

- Process parameter adjustments to improve yield
- Increased frequency of tracking and internal reporting of specific materials use
- Raw material quality improvements that result in more efficient use
- Waste minimization through equipment reliability improvements

A circular economy is one of the three sustainability focus areas that we've identified as critical to our business and where we can make a difference. In June 2020, we announced new targets aimed at eliminating plastic waste:

- By 2030, Dow will **STOP THE WASTE** by enabling 1 million metric tons of plastic to be collected, reused or recycled through its direct actions and partnerships.
- By 2035, Dow will **CLOSE THE LOOP** by enabling 100% of Dow products sold into packaging applications to be reusable or recyclable.

We will report on progress toward these targets in future reports.



Energy

Most of the power and steam consumed for operation of our manufacturing processes comes from combined heat and power (CHP) plants. The CHP plants provide power and steam to production facilities using

20-40% less fuel

than conventional power generation – emitting fewer GHGs.

Energy and Greenhouse Gas (GHG) Emissions Management GRI 302-103

Dow operates our manufacturing assets safely and reliably, and to create value for all our stakeholders. Our Energy Business, as a part of the Feedstocks & Energy business, manages the commercial relationships for the power, steam, emission credits and industrial gases required for Dow’s operations. Many of Dow’s initiatives around carbon and emissions are also managed by the Energy Business. The business is led by a Global Energy & Climate Change Director, and a team of regional directors and energy managers who define the best integrated asset and commercial strategies for major sites and the company exposures. The Energy Technology Center supports the efforts to optimize energy use and emissions through the implementation of energy efficiency projects within Dow’s sites. Dow’s Energy Business manages a portfolio of power and steam production assets, as well as fuel, steam and power purchases.

Energy Consumption Within the Organization GRI 302-1

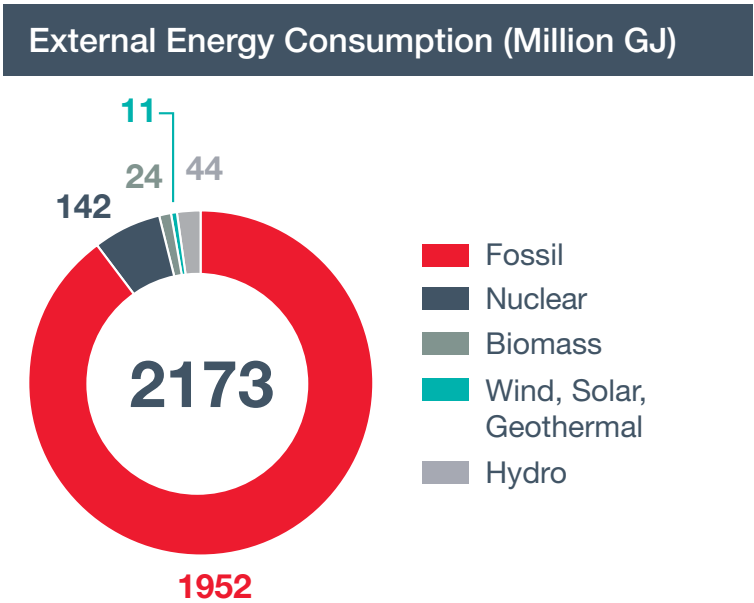
In 2019, our energy intensity was 4711 Btu/lb produced. This represents total energy, power, steam, compressed air, cooling water pumps and other equipment used by manufacturing facilities. Energy intensity has remained relatively flat since 2005. GRI 302-3

Source	Million GJ
Purchased Natural Gas	373
Off Gas from Feedstock	261
Purchased Electricity	38
Power Sold	29
Net Purchased Power	9
Purchased Steam	41
Net Use	684

Purchased electricity includes renewable sources		
Fuel Source	Capacity (MW)	Consumption (Million GJ)
Wind	375	4.356
Hydro	147	4.222
Biomass	17	0.134
Landfill Gas	3	0.045
Solar	0.5	0.002
Total	542	8.760

Purchased steam includes renewable sources*	
Fuel Source	Consumption (Million GJ)
Biomass	5.958
Total	5.958

\* Previous year’s representation did not separate purchased sources of renewable electricity and renewable steam.



Energy Consumption Outside of the Organization GRI 302-2

Energy consumption outside of the organization is estimated using primary data for purchased quantities of raw materials and representative datasets for cumulative energy demand from the Ecoinvent v3 database. In previous estimates based on secondary data, purchased goods was identified as the largest contributor to energy consumption outside of the organization. For 2019, only this category was calculated.



## ENVIRONMENTAL IMPACT

# Energy



### Clean Energy

Under our 2025 Sustainability Goals, Dow has committed to obtain 750 MW of its power demand from renewable sources by 2025. Dow purchases renewable energy in Europe, Latin America, U.S. and Canada. Because the economics for renewables vary, we utilize wind, solar, hydropower, biomass and land fill gas, depending on the location. All projects are selected based on the lowest long-term cost of power or steam from available alternatives. We support contract-based additionality of renewable power where our assets operate, helping industry and residents alike.

In 2019, we added to our renewable capacity by implementing a wind power contract for 20 MW to support our Bahia Blanca site in Argentina. We also laid groundwork for an additional 25 MW of solar power capacity to support our Carrollton, Kentucky, site beginning in 2022, and for approximately 143 MW of wind power capacity to support our Aratu, Brazil, site beginning in 2021. By the end of 2019, we had in place contracts for 542 MW of renewable power, as well as 244 MW of renewable steam.

**In 2019, Dow engaged with the World Business Council for Sustainable Development's (WBCSD) REscale team, which brings together leading companies representing the full renewable energy value chain to accelerate deployment of renewables and the transition to a low-carbon electricity system. Dow participated in REscale Brazil deep-dive workshops designed to increase the understanding and use of corporate renewable power purchase agreements.**



### Did You Know?

Dow is the No. 1 user of clean energy in the chemicals industry and ranks among the

## TOP 25

global corporations in terms of renewable power use.





# Emissions



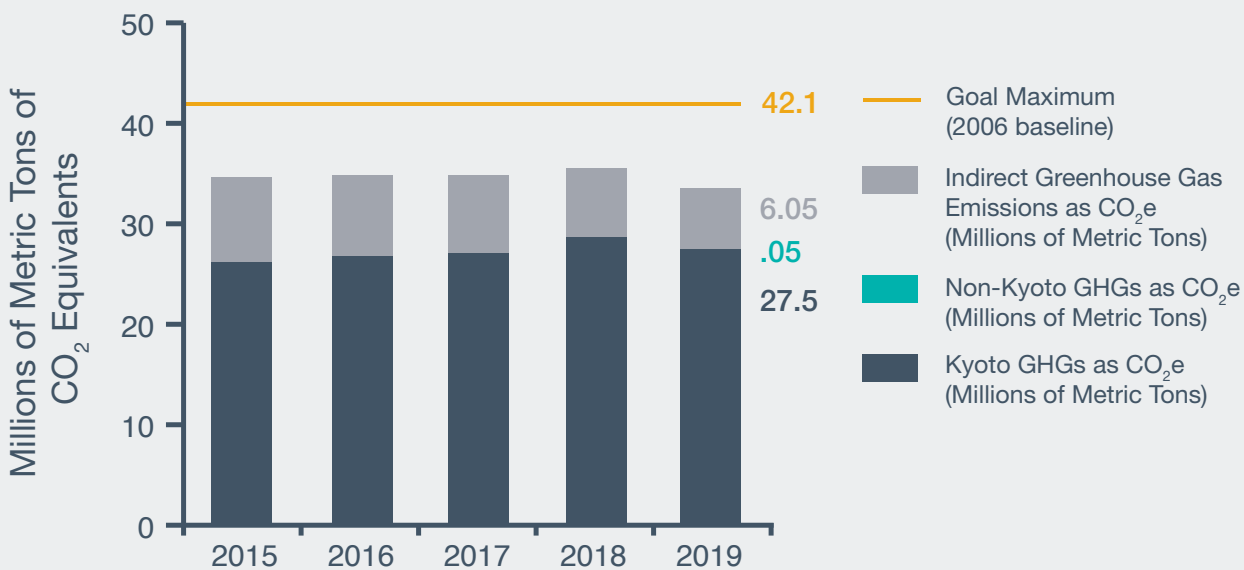
## Emissions and Carbon Intensity GRI 305-4

In 2019, our greenhouse gas intensity was down approximately 3% from 2018 and by a total of approximately 13% since the baseline year of 2006. In pursuit of our 2025 Sustainability Goals target to hold our absolute greenhouse gas emissions to our 2006 baseline, we are focused on a wide range of strategies to reduce emissions in our operations while increasing our energy efficiency.

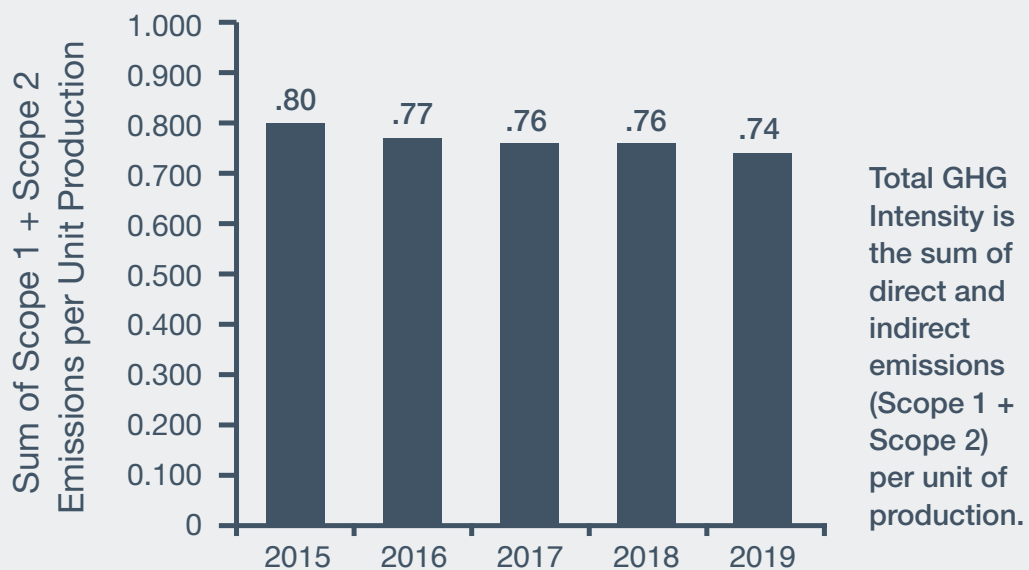
## Scope 1 and Scope 2 GHG Emissions GRI 305-1, GRI 305-2

Greenhouse gases are accounted for in accordance with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard and using emission factors from the IPCC Fifth Assessment Report. Historic data takes into account any divestitures, mergers and acquisitions, and may change to reflect those activities.

### Scope 1 and 2 Greenhouse Gas Emissions



### GHG Emissions Intensity



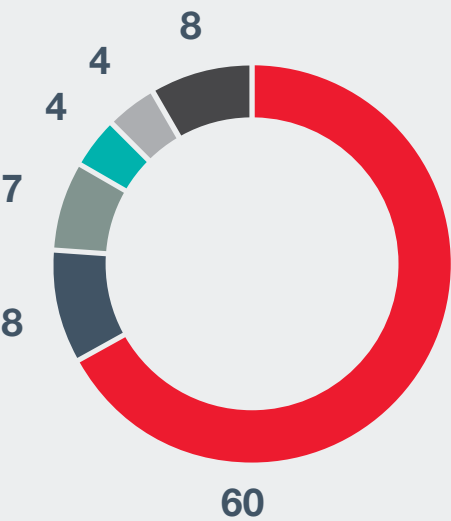


# Emissions



## Scope 3 Greenhouse Gas Emissions

(in Million Metric Tons CO<sub>2</sub>e)



- Purchased Goods & Services
- Fuel & Energy Related Activities
- End-of-Life Treatment of Sold Products
- Investments
- Downstream Transportation & Distribution
- Other

## Scope 3 Emissions GRI 305-3

Other indirect (Scope 3) GHG emissions occur from sources not owned or controlled by Dow. We have assessed all Scope 3 categories according to the GHG Protocol's Corporate Accounting Standard and the Corporate Value Chain (Scope 3) Accounting and Reporting Standard, and the World Business Council for Sustainable Development's Guidance for Accounting and Reporting Corporate GHG Emissions in the Chemical Sector Value Chain. The results are summarized in the chart on the left. Differences from values reported in 2018 are largely a result of updated calculation methodologies. Purchased raw materials continues to be the largest category of Scope 3 emissions for Dow. The most significant change from prior calculations is in the absolute quantity and fraction of the total for the end-of-life treatment category. This is due to replacing a broad assumption about end-of-life treatment method with more precise information collected from our business units as part of the Sustainable Chemistry Index survey process.

## Reduction of Energy Consumption and GHG Emissions GRI 302-4, GRI 305-5

Dow tracks energy and GHG intensity and consumption year over year as key metrics. While many projects implemented throughout the year have an impact in reducing both energy consumption and GHG emissions, the following table outlines projects executed in 2019 that have had a material impact:

Project Summary	Location	Type of Energy Reduced	Amount (in millions of kJ/Yr)	Scope in Which Reduction Took Place	Approx. Amount of GHG Reduced (Metric Tons/Yr)
Use of hydrogen byproduct from ethylene cracker in site gas turbines	Hahnville	Fuel	2,100,000	Scope 1, Scope 2	100,000
Steam venting optimization project	Oyster Creek	Purchased power and fuel	1,100,000	Scope 2	160,000
Amines and butanol energy efficiency improvements	Hahnville	Purchased power and fuel	640,000	Scope 1, Scope 2	32,000
Flare reduction from Ethylene Crackers	Multiple Locations	Fuel, raw material, product flaring	3,100,000 (net reduction across cracker fleet)	Scope 1	290,000 (net reduction across cracker fleet)
Total			6,940,000		582,000

Note: Energy and emission savings were determined by comparing plant operating conditions before projects were implemented to conditions after implementation.



# Emissions

In 2019, Dow was a key contributor in providing insights into reports published by the Center for Climate and Energy Solutions (C2ES), a nonprofit environmental organization.

- **The first report, [Pathways to 2050:](#)** Alternative Scenarios for Decarbonizing the U.S. Economy, is the product of a collaborative exercise led by C2ES that sought to examine potential scenarios that could enable the achievement of mid-century decarbonization goals.
- **The second report, [Getting to Zero:](#)** A U.S. Climate Agenda, outlines a comprehensive agenda for decarbonizing the U.S. economy by 2050, with an emphasis on priority actions needed over the coming decade.

In addition to the reduction of energy consumption and GHG emissions, in 2019, an industrial demonstration project of a steam re-compressor was implemented at our Terneuzen site. The project upgrades excess low-pressure steam, generated as a byproduct of an exothermal polymerization reaction, to useful steam that can support the site. The use of this technology on a larger scale has the potential to reduce energy usage for steam generation in boilers and thus GHG emissions.

## Air Emissions GRI 305-6, GRI 305-7

Ozone-Depleting Substances

2017
2.87
2018
1.74
2019
1.51

Metric tons CFC-11e

>>

NOx

2017
20,117
2018
19,864
2019
18,534

Metric tons

>>

SOx

2017
2,837
2018
2,614
2019
2,573

Metric tons

>>

VOC

2017
7,205
2018
7,583
2019
7,534

Metric tons

>>

Chemicals to Air and Water

2017
11,717
2018
12,625
2019
13,914

Metric tons

>>

Priority Compounds to Air and Water

2017
257
2018
258
2019
248

Metric tons

>>



# Water



## Water Use Across Dow Facilities GRI 303-103

As one of the largest manufacturing companies in the world, we depend on a steady supply of water to create the products that are essential for everyday life and human progress. The global challenge of protecting this supply is addressed through a broad range of activities by the company – from understanding the specific watershed stressors to recognizing the needs of other water users and required base environmental flows. In 2019, we made significant progress in quantifying the full value of water to our operation and embedding it in business decisions. We also prioritized water conservation and reuse investments based on site-specific water risks. These actions are required to define the path and costs associated with meeting our 2025 Sustainability Goals target of reducing freshwater intake at key water-stressed sites by 20%.

This section focuses primarily on the water footprint of our global operations. It also highlights examples of where we leverage solutions from our own portfolio of business offerings and partner with others to improve sustainable water management.

### Sustainable Water Management

Developing sustainable water management practices is critical to our business. Establishing a long-term vision for water is also a key part of our water management strategy and is reflected in several of our 2025 Dow Sustainability Goals.

Dow 2025 Goal	Alignment with Water Strategy
Leading the Blueprint	Blueprint for Sustainable Watershed Management
Enabling a Circular Economy	Water recycle projects at Dow manufacturing sites
Valuing Nature	Projects that deliver value for Dow and for ecosystems
World-Leading Operations Performance	Goal to reduce freshwater intake intensity by 20% at key water-stressed sites

### Water-Stressed Sites

The Company has identified six of our manufacturing sites as key water-stressed sites. These sites are designated based on a number of factors, including their location in a water-stressed watershed, water quality, competition among users of the same watershed, local experience at the site and long-term projections. Because water supply issues are evolving and not isolated to water-stressed sites, Dow also keeps track of sites that are under a “watch list” where water challenges may occur.



# Water



## Water Stewardship in Action GRI 303-1, GRI 306-5

A Ramsar site is a wetland site designated to be of international importance under the Ramsar Convention, an international treaty for the conservation and sustainable use of wetlands. Among Dow’s six designated water-stressed sites, two sites withdraw river water near sensitive wetlands areas listed in the Ramsar wetlands database. In both cases, Dow has collaborated with a variety of stakeholders, including nearby municipalities, to put in place strategies to reduce water stress in these regions.

Utilizing an “every drop counts” mindset, we are contributing to water resilience in the areas of Terneuzen, The Netherlands, and Tarragona, Spain, by recycling and reusing wastewater in our operations to reduce our water footprint. Currently, our recycle and reuse rate is about 20%. Because Dow has been working on these endeavors for many years, we continue to look for innovative approaches to further progress.



Highlight

Constructed  
wetlands still  
performing after  
25 years.



# Water



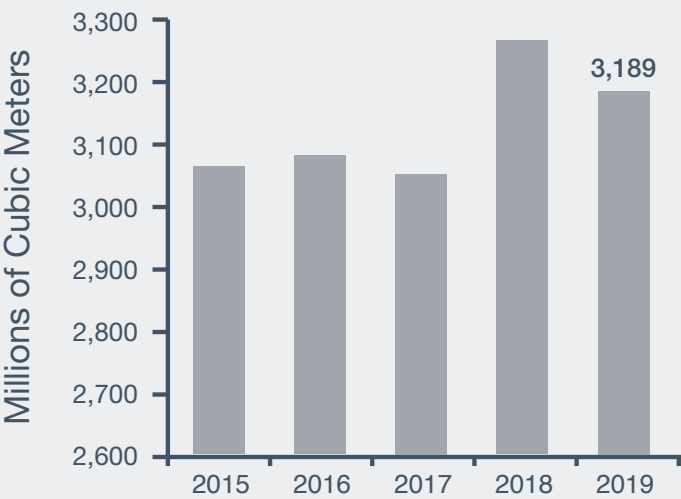
## Water Withdrawals GRI 303-3

Water is used for a variety of purposes in Dow production facilities across the globe. Surface water withdrawals are 65% freshwater and 35% seawater/brackish. The majority of the freshwater intake is used for cooling and most of it is evaporated in cooling towers, returning the water to the environment. In locations such as coastal production facilities where sea/brackish water is readily available, it is used for cooling and accounts for the high proportion of seawater/brackish water in use at some locations. Rainwater is recovered in multiple locations and reused for firewater and other purposes, but its volume compared to other intakes is relatively small.

Only a small proportion of the water intake ends up in product (e.g. consumption). Past assessment of water use in the sites with the highest freshwater intake showed that more than 85% of the source water was returned within the watershed at equal or better quality than at withdrawal. The total volume of water intake globally has been relatively consistent as a result of the combined impact of process efficiencies, business portfolio changes and growth.

Freshwater intake intensity is tracked for the Dow’s six water-stressed sites described [here](#). In 2019, the freshwater intake intensity at these sites was 12.64, an increase of 7% over the 2015 baseline. As seen in the graph showing our freshwater goal, we had made many improvements in this area. However, 2019 water intensity is up due to a series of turnarounds that decreased production while still requiring water (mainly used for cooling purposes). In addition, less rainwater was captured in our reservoirs due to drier conditions in 2019. This speaks to the sensitivity of the water metric to parameters that are within our control, such as required maintenance of assets, and those that are not, such as rain availability and evaporation from reservoirs. (An analysis of our Freeport site, our largest manufacturing facility, indicates available water storage can have a significant impact on water intensity, roughly 20% from a dry year to wet year.) To highlight our major efforts to improve water resiliency at the watershed level at our key water-stressed sites, additional breakdowns of water withdrawals that reflect basin context also are being considered. As noted on the [previous page](#), the company has implemented mitigation strategies to reduce freshwater intake at those facilities or leverage new technologies allowing recycling of various sources of impaired water both within Dow’s fenceline and externally.

Total Water Intake, All Sources



Freshwater Withdrawals, Breakdown by Source, Millions of Metric Tons

	Total All Sites	Water-Stressed Sites
Groundwater	36	0.5
Purchased water	98	29
Surface water	1,876	205
Total	2,010	234.5



# Water



## Water Discharges GRI 306-1 (2016), GRI 306-103

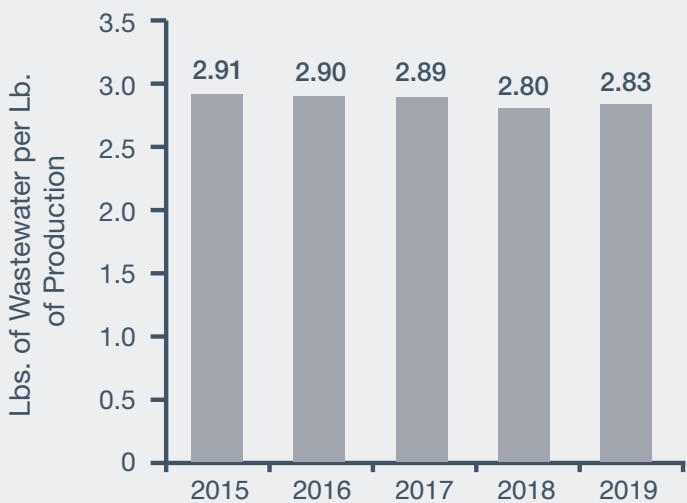
Once water has been used in Dow facilities, it is typically treated at a wastewater treatment plant and discharged. The total volume of wastewater discharged in 2019 was 129 million metric tons. The majority of the water is discharged as surface water, with a small portion returned to oceans. At a few sites, Dow site wastewater goes to a third party for treatment before discharge (typically to surface water).

Wastewater intensity is the ratio of pounds of wastewater per pound of production. Over many years, our wastewater intensity has been relatively consistent at approximately three pounds of wastewater discharged per pound of product.

GRI 303-2 Wastewater quality is strictly governed by local regulations, and parameters are set specifically for each watershed. Dow’s operations abide by these local regulations. Therefore, wastewater discharge quality is not reported consistently across all Dow sites. Total Suspended Solids (TSS) and Biochemical Oxygen Demand (BOD) are reported for the sites listed here, which account for more than 85% of Dow’s wastewater discharge.

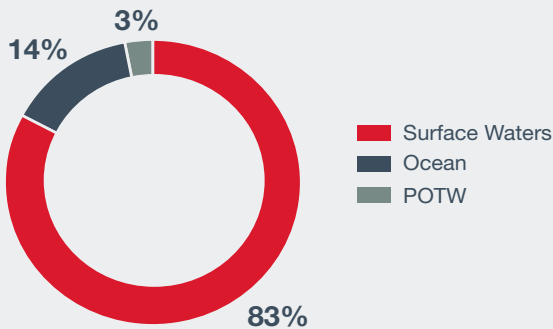
Our seven major wastewater discharge sites were identified to establish the baseline for the 2015 Sustainability Goals and account for more than 80% of our total discharge. The six key water-stressed sites were added to the wastewater discharge quality reporting with the inclusion of the 2025 Sustainability Goal to reduce freshwater intake intensity at key water-stressed sites by 20%. The TSS discharge concentration across the sites has been relatively consistent (2016 TSS was 0.005%, and the BOC concentration was 0.004%.)

### Wastewater Intensity



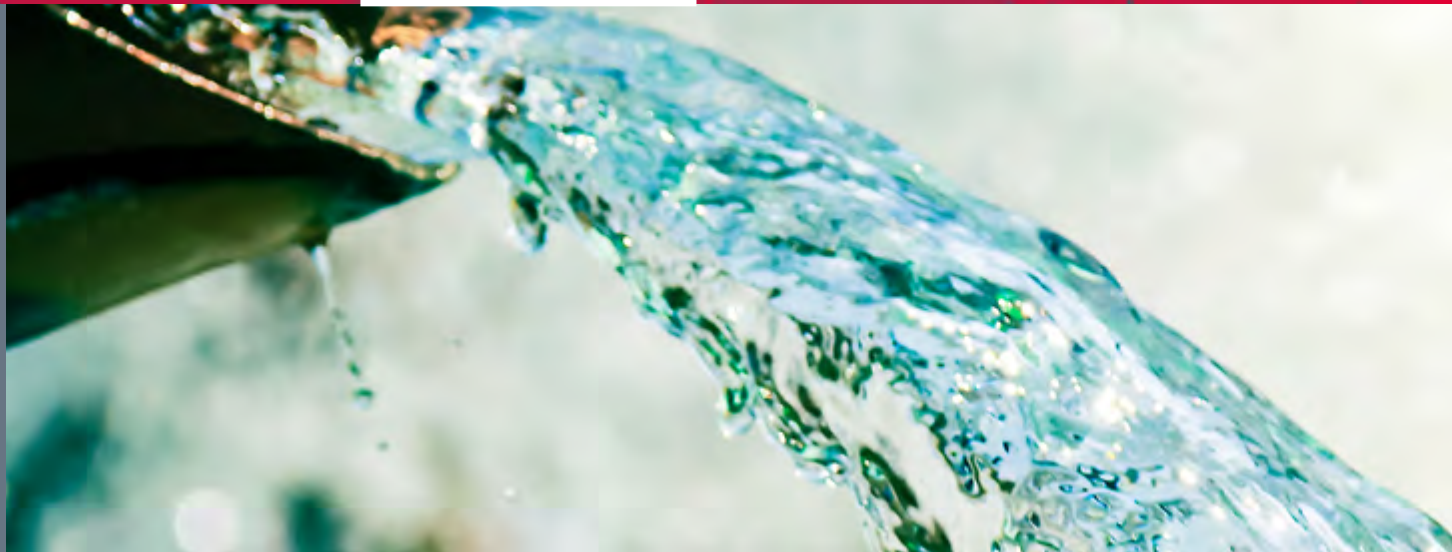
Major Wastewater Discharge Sites	Key Water-Stressed Sites
Plaquemine, LA	Terneuzen, The Netherlands
Stade, Germany	Böhlen, Germany
Freeport, TX	Freeport, TX
Aratu, Brazil	Tarragona, Spain
Midland, MI	Bahía Blanca, Argentina
Deer Park, TX	Seadrift, TX
Texas City, TX	

### Discharge Destination



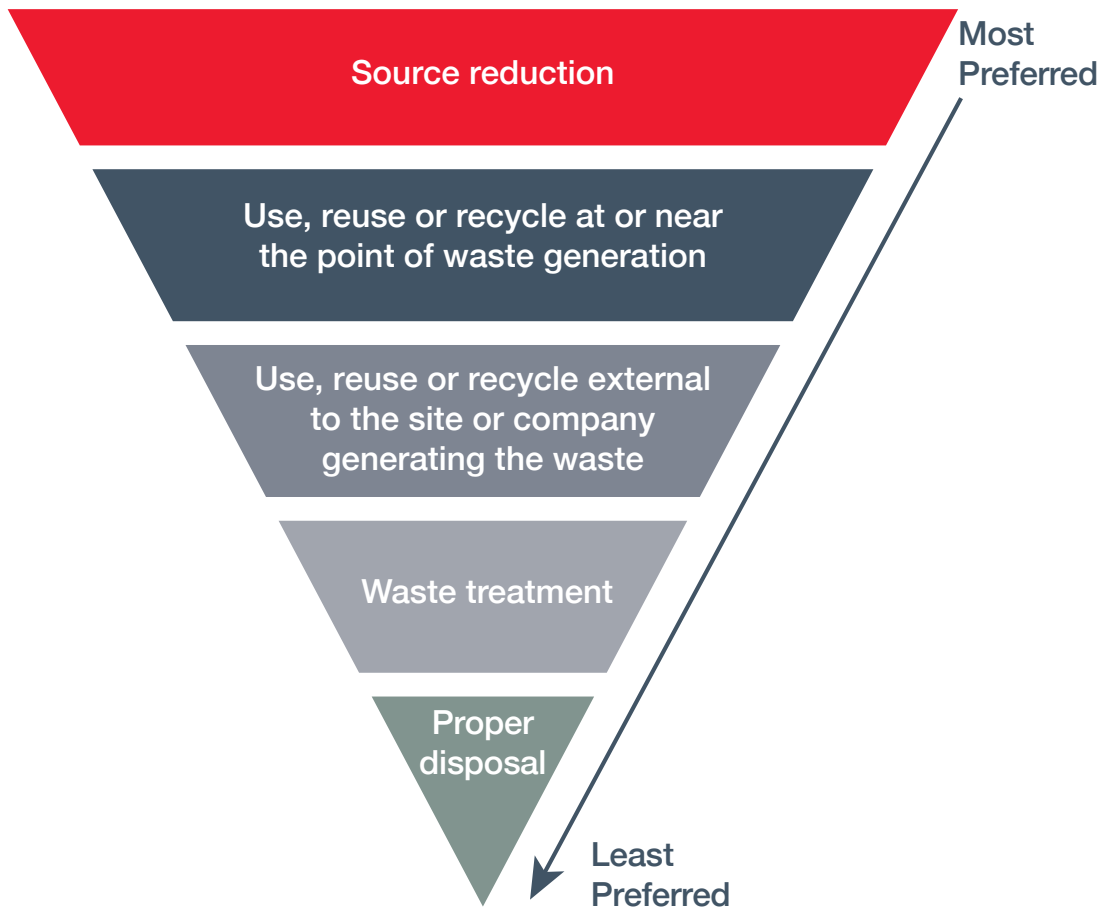


# Waste

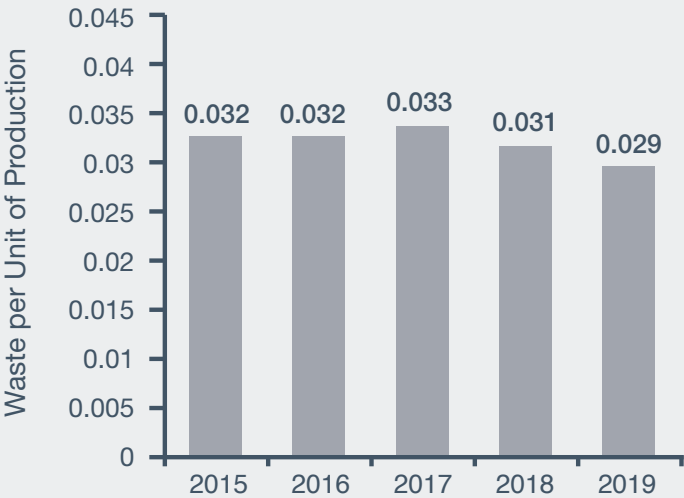


## Waste GRI 306-2

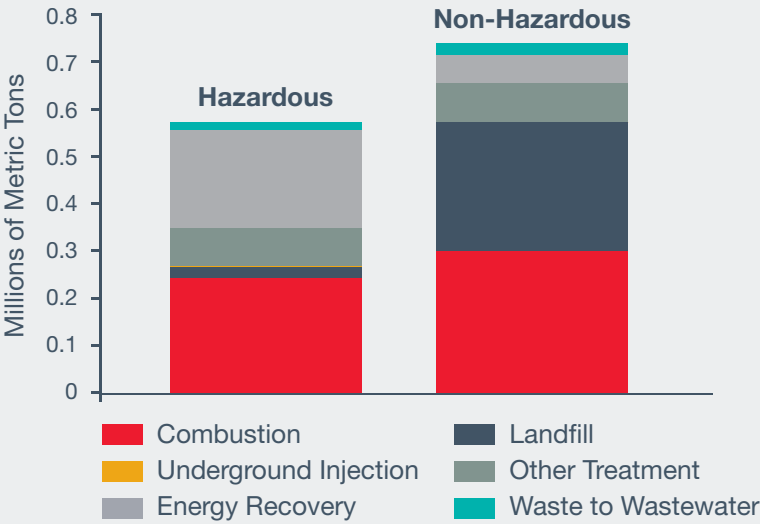
It is Dow’s policy to adhere to a waste management hierarchy that minimizes the impact of wastes and emissions on the environment. First, we work to eliminate or minimize the generation of waste and emissions at the source through research, process design, plant operations and maintenance. Second, we also find ways to reuse and recycle materials. Next, unusable or non-recyclable hazardous waste is treated before disposal to eliminate or reduce the hazardous nature and volume of the waste. Treatment may include destruction by chemical, physical, biological or thermal means. Disposal of waste materials in landfills is considered only after all other options have been thoroughly evaluated. Total waste disposed of in 2019 was 1.32 million metric tons.



## Waste Intensity



## Waste Distribution





# Waste

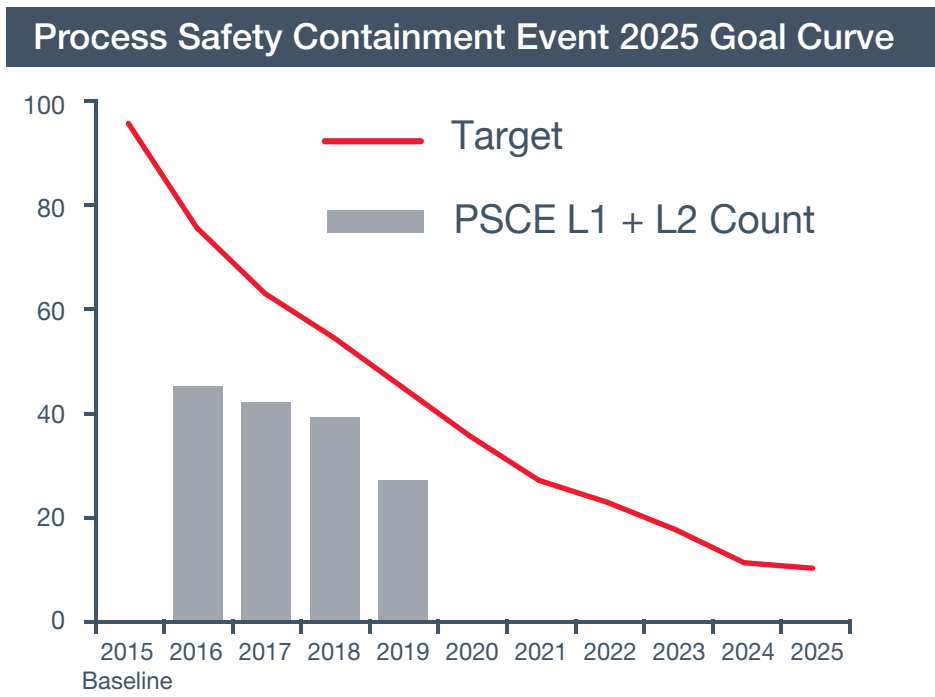


## Significant Spills GRI 306-3

Beginning in 2016, Dow began using a new metric, Process Safety Containment Event (PSCE). Our PSCE metric is derived from an industry best practice, API RP-754. As an industry leader in sustainability performance, Dow has been heavily involved in the development of this metric. We believe aligning to this measure will help us achieve an even higher level of performance related to the containment and control of the materials we handle and produce.

Similar to the approach we are now taking with injury and illness measurement, our PSCE metric focuses on both incidents that have the greatest impact, as well as incidents with the greatest potential for significant impact, including process damage, interruption or possible impact on our surrounding communities. We have defined levels 1–4, with Level 1 incidents having the highest actual or potential impact. By 2025, our goal is to reduce the number of Level 1 and Level 2 events by more than 80% from our 2015 baseline.

- In 2019, the company had 27 significant process safety containment events, achieving a 30% performance improvement over the prior year. This represents truly breakthrough performance in the overall number of events. Unfortunately, this total included two very significant events that led to extended downtime.
- The breakthrough in overall number of events is realization of the shift in focus to put more energy into understanding near misses with greater potential. The two significant events are stark reminders that work remains to be done to recognize and address potential risk before an unplanned event occurs. The events in 2019 remind us of the critical nature of the interface between work and process control, especially when maintenance and unplanned outages impact the availability of safety systems. A project was initiated in 2019 to expand the scope of our Safety System Impairment standard while simplifying language to drive more robust implementation.





OUR PEOPLE

# Approach



## Our Approach GRI 401-103

Every Dow story starts with our people. Together, our 36,500 employees form an inclusive community of problem-solvers that help us deliver innovative solutions and an optimal customer experience, while transforming industries and shaping a sustainable future. We’re invested in fostering a culture of inclusion, diversity and continuous learning to ensure every Dow employee is respected, valued and encouraged to make their fullest contribution. A commitment to safety, employee health and world-leading environmental performance is engrained in our culture and central to how we work.

## Highlights

In 2019, we continued to make progress against key areas to improve our employee experience.

### Employee Sentiment

**84%** of employees agree Dow is a **safe & healthy** workplace

**78%** agree the workplace is **fair**

**73%** agree the work is **meaningful**

### Employee Resource Group (ERG) Participation

**10** Dow ERGs | **42%** employee participation rate in ERGs

**10%** increase in employee participation in ERGs from 2018

### Diversity Representation

**Female representation** on our Leadership Team increased from

**9% to 31%**  
in 2017 in 2020

Percentage of **U.S. minorities** on our Leadership Team increased from

**9% to 31%**  
in 2017 in 2020



OUR PEOPLE

# Inclusion & Diversity



## Inclusion & Diversity

In an increasingly global business environment, we consider inclusion and diversity (I&D) to be a competitive driver. I&D is the smart thing to do, but it is also the right thing to do. It not only helps make Dow a great place to work, but it enhances our innovation, customer experience and understanding of the communities we serve. In 2017, we took actions to make our I&D efforts more strategic and intentional. We appointed our first inclusion officer, established an Office of Inclusion and implemented a three-tiered governance structure that engages employees at all levels of the company. Our inclusion strategy is based on seven foundational pillars and includes supporting behaviors and actions. Additionally, our I&D metrics are embedded in the same scorecard where we measure our financial and safety results.



### Governance

Institutionalize an inclusive culture



### Customers

Deliver an unparalleled customer experience



### Talent

Increase engagement and create an environment where everyone can thrive



### People Leaders

Cultivate an inclusive culture



### Suppliers

Achieve top benchmark performance in supplier diversity



### Communities

Strengthen communities where we live, work and do business



### Reputation

Establish a leadership position and be recognized as a great place to work



OUR PEOPLE

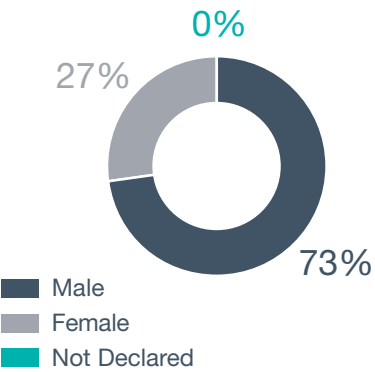
# Inclusion & Diversity



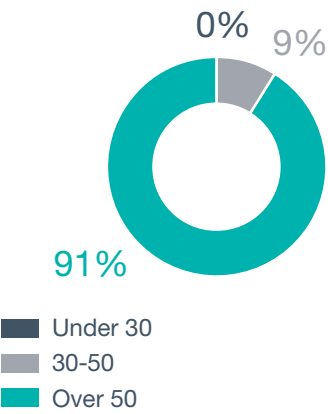
## Board Diversity

As of June 1, 2020

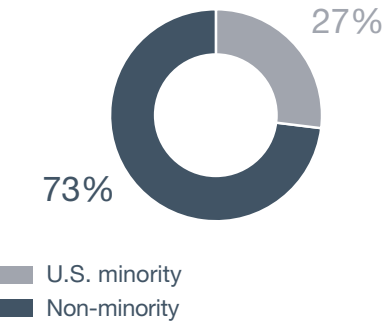
### BY GENDER:



### BY AGE GROUP:



### BY U.S. MINORITY:



## Diversity of Employees and Governance Bodies GRI 405-1, GRI 405-103

At Dow, we believe a diverse, experienced, independent and active board leads to improved decision-making, financial performance and shareholder value. As of June 1, 2020, the Dow Board was comprised of Chairman and Chief Executive Officer Jim Fitterling and 10 independent directors who represent different professions and industries, and a diversity of ethnicity, gender and global experience. In addition to five continuing heritage Dow independent directors, five new independent directors have joined the board.

## Employee Diversity

	INDIVIDUAL CONTRIBUTOR	MANAGEMENT	SENIOR LEADERS	TOTAL
EMEA	73% 27%	70% 30%	83% 17%	73% 27%
LATIN AMERICA	74% 26%	63% 37%	44% 56%	73% 27%
U.S. & CANADA	74% 26%	67% 33%	69% 31%	73% 27%
ASIA PACIFIC	66% 34%	65% 35%	56% 44%	66% 34%
UNDER AGE 30	35% 65%	35% 65%	0% 0% 0%	36% 64%
AGED 30-50	29% 71%	36% 64%	40% 60%	29% 71%
OVER AGE 50	21% 79%	25% 75%	20% 80%	21% 79%

Male Female Not Declared

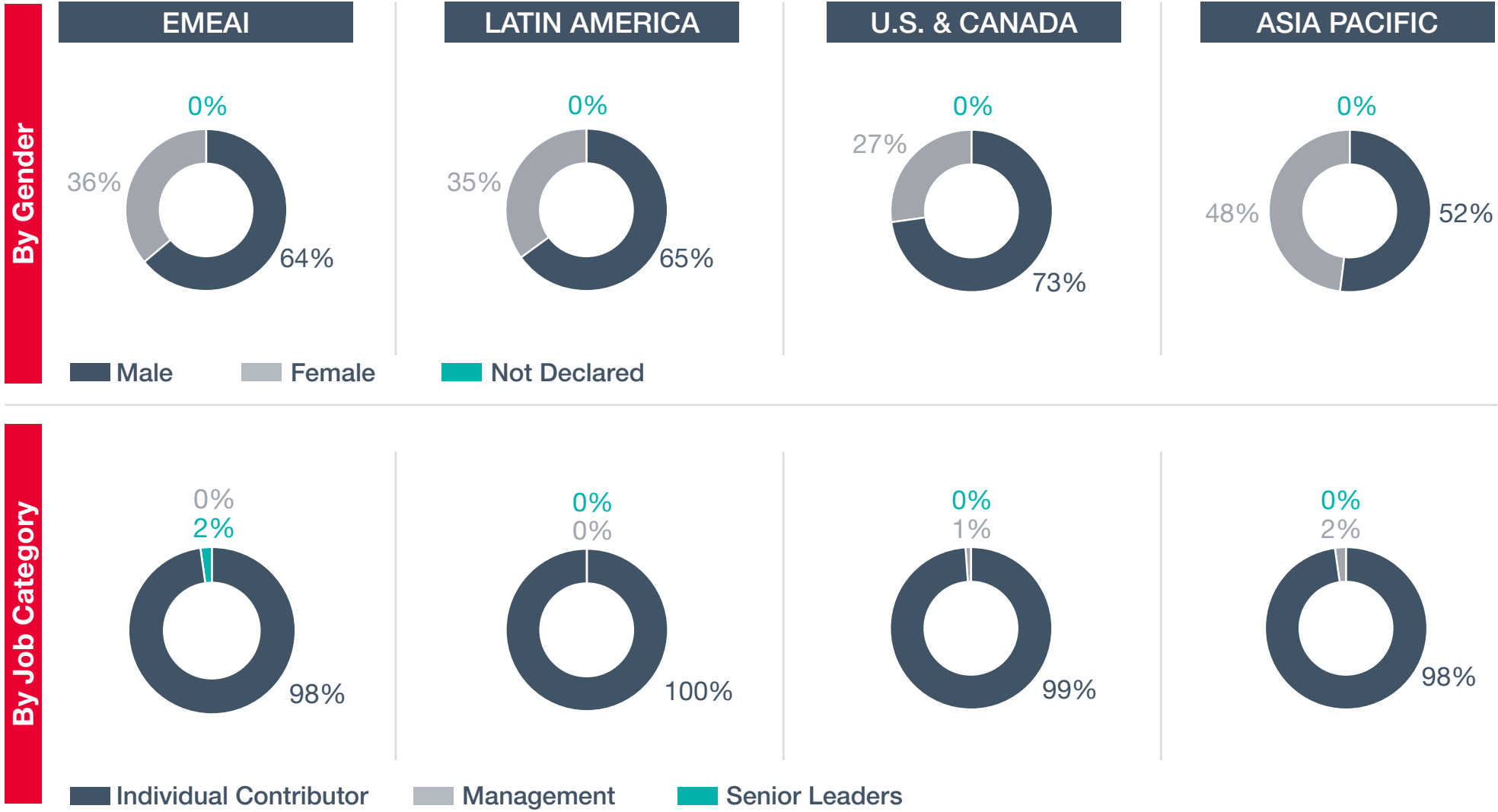


Inclusion  
& Diversity

New Hire Diversity Indicators GRI 401-1



New Employee Hires – Gender and Job Category by Region





OUR PEOPLE

## Inclusion & Diversity



### Diversity of Employees by Full- and Part-Time Status

#### Workforce Representation by Gender – TEMPORARY AND PERMANENT BY GEOGRAPHY



#### Workforce Representation by Gender – FULL TIME AND PART TIME BY GEOGRAPHY



There is not a significant portion of the organization's activities performed by workers that are non-employees. Dow does utilize contract employment for some functions where the temporary roles due to projects or production may turn into full-time Dow roles if the demand is there or performance is exceptional. There are no significant variations in employment due to tourism or agricultural industries; however, based on economic fluctuations, employment may decline or increase.

*The workforce data is gathered through a centralized database containing all employee information. The employee data is updated by Human Resources and managers when employee information changes occur. The data represent the global employee population as of December 31, 2019, and include all permanent, full-time and part-time employees. Temporary employees, contractors and manual additions are excluded unless otherwise stated.*



Benefits Provided to Full-Time Employees that Are Not Provided to Temporary or Part-Time Employees GRI 401-2

Regular full-time and less-than-full-time employees are provided a wide variety of benefits,\* while only temporary employees are not eligible to receive these benefits. Dow’s benefit plans are designed to build on the social security benefits provided in each country and, as a result, vary by country. In all significant Dow locations, we offer the following benefits to employees:

- Pension plans – either defined benefit or defined contribution plans
- Medical plans – often including prescription drug coverage and dental
- Life insurance
- Disability protection
- Accident insurance
- Paid vacation, holiday and leave programs
- Business travel accident insurance

Collective Bargaining Agreements GRI 102-41

Approximately 10.5% of Dow’s workforce was covered by either formal collective bargaining agreements or works councils in 2019. The percentage decrease from last year’s report is primarily due to reduction in the union workforce in the United States as a result of the changed composition of the Company following the separation from DowDuPont.

Parental Leave GRI 401-3

Dow’s Global Parental Leave Policy is intended to provide greater flexibility and work-life balance for mothers and fathers. Birthing parents have a minimum 12 weeks of paid leave, and the non-birthing parent has two weeks of paid leave, which can be taken during the 12 months following the birth of a child.

Return from Leave Rates	Male	Female	Not Declared	Total
Number of employees who were entitled to parental leave	19,624	7,989	2	27,615
Number of employees who took parental leave	500	312	0	812
Number of employees who returned to work in the reporting period after parental leave ended	499	279	0	778

Due to the transfer to Workday, our Human Capital Management system, in 2019, the reporting was not available to compare all of the return to work and retention rates. Data reflects U.S. & Canada, Asia Pacific and Latin America (excluding Colombia and Mexico) and excludes EMEAI.

*\*Note that in all Latin American countries, there is no difference in benefits packages offered to regular and temporary employees. Colombia only offers a savings plan (no pension), and Costa Rica, Peru and Chile do not have pension or savings plans.*



Ratio of Basic Salary and Remuneration of Women to Men GRI 405-2

Global pay equity studies have been conducted at Dow for over 20 years to assess fair treatment and ensure our pay practices are being implemented appropriately. The most recent full analysis was conducted in 2018, following our annual global pay planning cycle. The impact of gender on pay decisions is examined globally, and the impact of ethnicity is examined in the United States. Dow’s three components of compensation are reviewed (base pay, annual performance award and long-term incentives). The study examines impact on pay differences that cannot be explained by legitimate factors (e.g., performance ratings, job level, education, years of service, time since promotion and/or geography).

The 2018 pay equity study found no meaningful difference in base pay, performance award or long-term incentives between genders or between U.S. minorities and non-minorities for employees within the same job level. Pay differences were attributable to the legitimate factors listed above and were not related to gender or ethnicity. These results demonstrate that compensation guidelines are being applied appropriately. The 2020 analysis was delayed until the end of 2020 due to the COVID-19 pandemic.

2018 Pay Equity Summary Results <sup>1</sup>	Base Pay <sup>2</sup>	Performance Award <sup>3</sup>	Long-Term Incentives <sup>4</sup>
Global Female Pay to Male Pay Ratio	1.005 : 1.000	1.000 : 1.000	1.003 : 1.000
U.S. Minority Pay to Non-Minority Pay Ratio	1.005 : 1.000	0.999 : 1.000	0.996 : 1.000

<sup>1</sup> The reported ratios are based on the standardized mean differences when controlling for legitimate business reasons for the differences (e.g., geography, job level) in accordance with the applicable laws.

<sup>2</sup> Base pay is calculated based on average position in the pay range.

<sup>3</sup> Performance award is calculated based on the actual value granted.

<sup>4</sup> Long-Term Incentives (LTI) analysis includes only those eligible and excludes other roles. LTI is calculated based on the actual value granted.

Annual Total Compensation Ratio GRI 102-38

As required by Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, and Item 402(u) of Regulation S-K, Dow is providing the following information:

For 2019:

- The annual total compensation for the median employee was \$109,556.
- The annual total compensation of Chairman and CEO Jim Fitterling, as reported in the Summary Compensation Table of our [Annual Proxy](#), was \$15,878,639.

Based upon the calculation for both the CEO and median employee, the ratio of the CEO pay to median employee pay for 2019 was approximately 145:1.

The pay ratio presented above is a reasonable estimate. To determine the median annual total compensation for all employees other than the CEO, a median employee was identified from the population of all employees worldwide as of November 30, 2019, utilizing base pay and annual incentive at target as the consistently applied compensation measure. The company calculated annual base pay based on a reasonable estimate of hours worked during 2019 for hourly workers, and upon salary levels for the remaining employees. The company used a valid statistical sampling methodology to identify employees who the company expected to be paid within a 0.1% range of the median. The company selected a representative employee from that group as the median employee for purposes of preparing the ratio of CEO pay to median employee pay. Because SEC rules for identifying the median employee and calculating the pay ratio allow companies to use different methodologies, exemptions, estimates and assumptions, the pay ratio may not be comparable to the pay ratio reported by other companies.



## OUR PEOPLE

# Learning & Development



According to our 2019

# Voice

Annual Survey,

# 73%

of Dow employees felt encouraged to continuously learn and develop in their role.

On average, there were

# 63.5 hours

of training logged per employee in 2019.

## Learning and Development GRI 404-1, GRI 404-103

Our world is changing at a pace never seen before. To continue to compete and lead, we need to think and act in new ways. A successful future for Dow and our employees will be built on learning. Throughout an employee's career, the Company supports people in their personal development through a mix of online and digital learning platforms, on-the-job training and a series of leadership development academies. Employees are encouraged to invest in themselves, and the technologies we deliver enable employees to access resources in real-time through mobile applications.

### Digital Learning

With a strong continuous improvement and learning culture, and in alignment with the Company's focus on technology and innovation, digital platforms are continuing to be incorporated and expanded. Diamond Learning, the company's global learning management system, offers a simple, engaging user experience and integrates modern learning technology solutions to digitalize and enhance employee learning capabilities. Diamond Learning supports Dow's strategy of providing learning that is simple, continuous and value-added. It emphasizes our desire to recognize and appreciate employee growth.

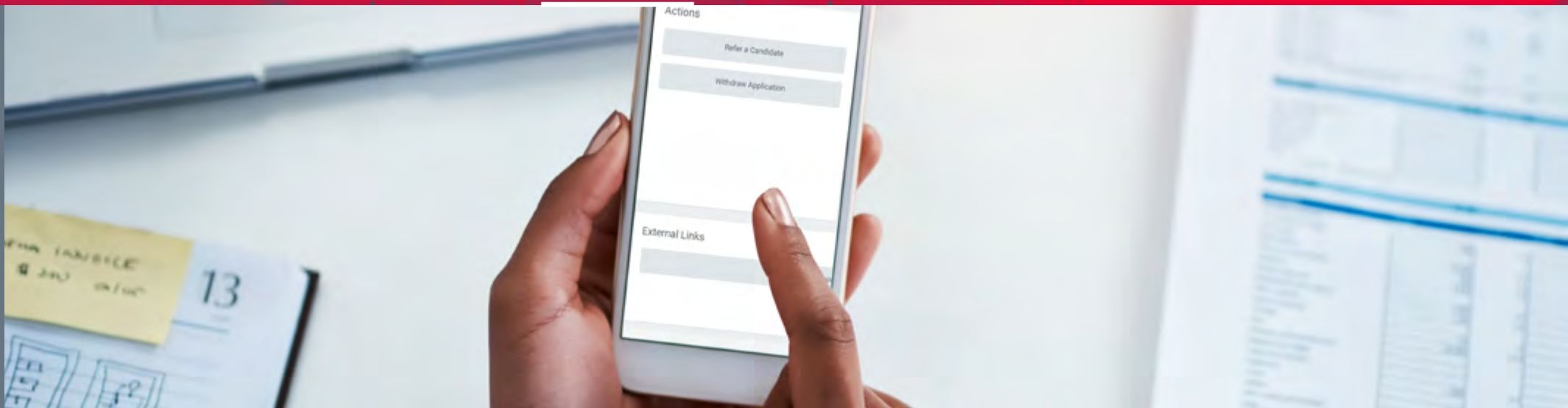
Our employees select and manage curriculum that aligns with their core role responsibilities and personal development interests. Dow can also ensure compliance on any necessary safety training. More than 30,000 courses are currently available, from internal content to LinkedIn Learning courses, keeping our learning experience diverse and engaging.

Dow issues training by role and not by gender. Gender statistics for learning are not within our learning system; however, as part of our process to close any diversity gaps for employee and leadership readiness, underrepresented individuals may be invited to specific trainings to increase the diversity pool.



OUR PEOPLE

Talent  
Attraction &  
Management



Top Employer  
Recognition

Dow’s efforts and commitment to creating a workplace that fosters innovation, collaboration, inclusion, safety and well-being for all Dow employees is reflected through 2019’s Top Employers Institute accolades in 11 countries.

EGYPT	NETHERLANDS
GERMANY	NIGERIA
GHANA	RUSSIA
KENYA	SAUDI ARABIA
NETHERLANDS DOW BENELUX INTEGRATED CENTER (DBIC)	SOUTH AFRICA SWITZERLAND UAE

Programs for Upgrading Employee Skills GRI 404-2

Dow supports employee engagement through My HR Portal, an online people resource launched in 2019. My HR Portal allows all employees to access development resources, online internal job postings, compensation and benefit information, and health and wellness programs. Employees take advantage of these offerings to develop their careers, enhance their employee experience and plan for career changes. In addition, Dow supports lifelong learning through specific skill building provided through functions, externally licensed development tools and an internal talent review process focused on differentiated development.



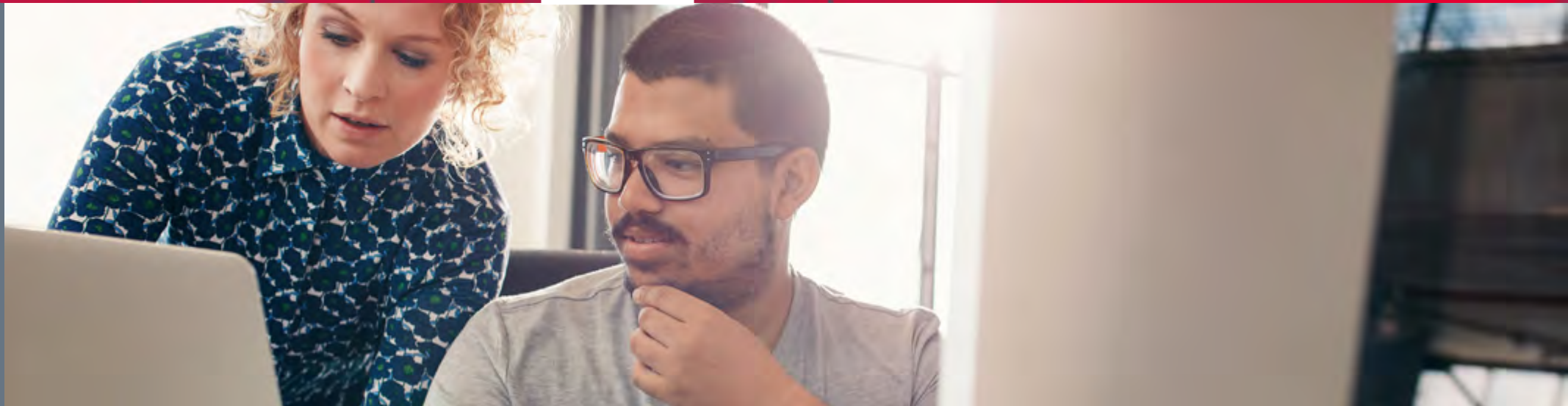
Examples of development resources include:

- Diamond Learning, a learning management system, for tailored learning curricula aligning to role responsibilities and personal development
- Total health, nutrition and wellness centers and associated programs and counseling
- Employee Resource Groups that support a variety of development opportunities
- Employee toolkits exploring personal and career values, preferences and orientations
- Toolkits to prepare for employee career development discussions
- Global Educational Assistance that supports employees in pursuing external training/ educational opportunities for career development
- Access to Human Resource (HR) call centers for personalized answers to HR questions for both employees and retirees
- Benefits counseling for employee retirement planning purposes
- Financial planning seminars for all employees
- Career transition assistance benefits including outplacement counseling services



## OUR PEOPLE

# Talent Attraction & Management



According to our 2019

# Voice

Annual Survey,

# 82%

of employees reported they have had a meaningful performance conversation with their leader in the past three months.

# 77%

of employees reported discussing goals with their leaders throughout the year.

## Percentage of Employees Receiving Regular Performance and Career Development Reviews GRI 404-3

Both leaders and employees play a key role in ensuring the effectiveness of our performance culture (PC) by establishing SIMple (specific, important, measurable) goals, encouraging continuous development feedback and dialogue, and reviewing progress on an on-going basis throughout the year. Our leaders are encouraged to partner with their employees to identify their strengths as well as opportunities for development. The PC cycle concludes with an annual review. In preparation, leaders gather multi-rater feedback throughout the year to enhance the quality of the discussion and ensure multiple inputs before making compensation decisions.

In 2019, 92.8% of employees were eligible to receive an Annual Performance Review, and 89.4% of those employees received one. There is no difference in eligibility by gender. There were 7.2% of employees who were ineligible including students, interns, co-ops, those who were part of divestitures and specific joint ventures, and other Dow employees based on local contractual agreements.

*Dow adapted a new HCM, Workday, which is still in the roll-out phase. Some data is not available due to the transition to Workday.*



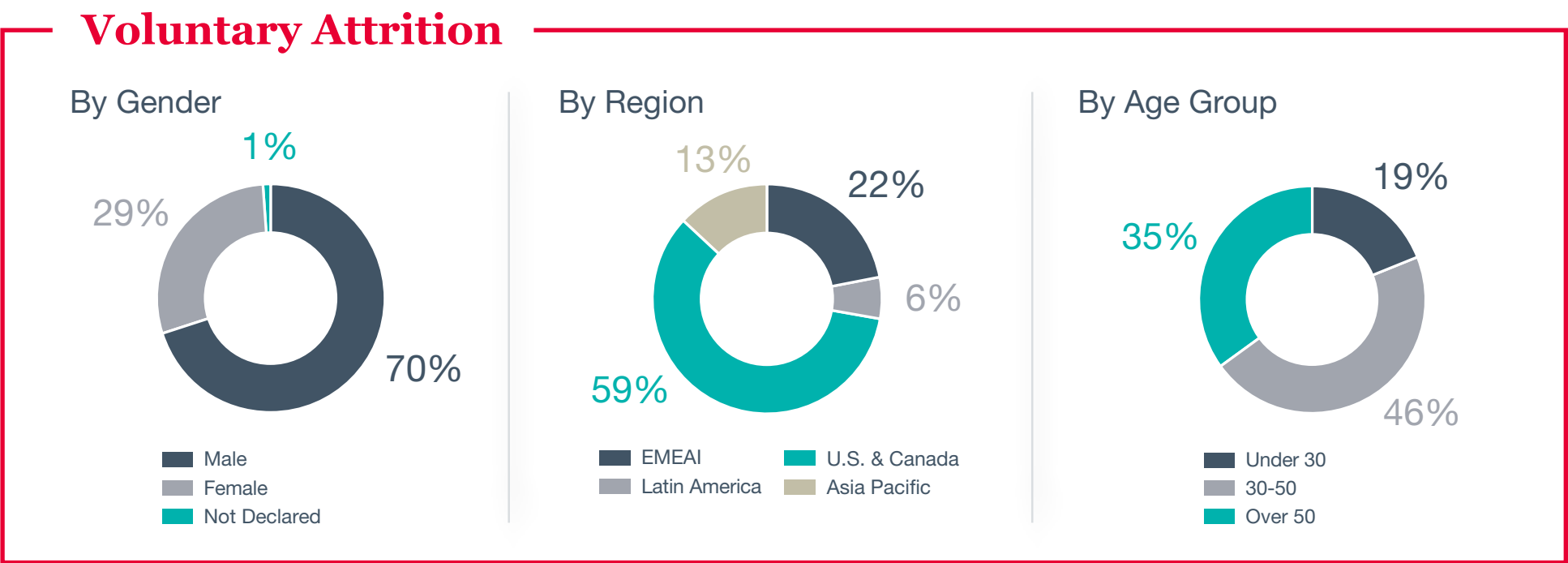
Talent Attraction & Management

Programs for Transition Assistance GRI 404-2

In 2019, employees separated from Dow were offered support services including career coaching, resume optimization, networking and interview preparation at no cost.

Total number and rate of employee turnover during the reporting period, by age group, gender and region GRI 401-1

Total Attrition





# Employee Health & Safety

## Employee Health and Safety GRI 403-1, GRI 403-103

Worker protection has been a priority at Dow since the Company’s earliest days. With the goal of having every worker go home safely at the end of their work shift, Dow uses a comprehensive, integrated operating discipline management system that includes policies, requirements, processes, best practices and procedures associated with Environment, Health and Safety, as well as Quality, Operations and related external standards. Within this system, we lay the foundational expectations of hazard assessment and risk mitigation, aligned to Responsible Care®.

At the highest level, we expect each organization within Dow to implement and use Health and Safety Programs to:

- Identify, assess, and eliminate or mitigate hazards
- Prevent unsafe acts and conditions
- Maintain and improve the health of personnel
- Foster communication on health and safety issues

## Our Global Health & Safety Management System

Our management system is grounded in requirements of the U.S. EPA and OSHA, but incorporates ideas from other global regions, as well as our own more stringent requirements.





# Employee Health & Safety

## Leading Indicators GRI 403-2

Leading indicators of Occupational Health and Safety performance are a cornerstone of Dow's worker protection program. A consistent set of globally applied leading indicators is complemented by locally defined leading indicators.

### Globally applied leading indicators include:

- Non-injury (near miss) situations with potential to cause a life-altering impact or fatality had the situation been only slightly different ("non-injury pLIFE event")
- Percent completion of training for Life Critical Standards
- Internal EH&S management system audit results
- Open actions from Reactive Chemical and Process Hazard Analysis reviews
- Loading rate for management of change actions – a measure of the amount of change work managed by a work group, normalized by worker capacity to implement such actions

### Our routine hazardous analysis programs include:

- Periodic health exams informed by the employee's role and potential exposure to specific workplace hazards
- Qualitative exposure assessment for chemical, physical, ergonomic and biological hazards overseen by professional industrial hygienists
- Regular evaluation and periodic re-evaluation of process safety hazards via our Layers of Protection Analysis
- Personal safety risk analysis performed as a part of numerous work processes (e.g., permit to work, safe work permit, pre-task analysis and pre-startup safety reviews)

## Teaching Safe Behaviors through Technology

Can technology identify an injury before it occurs? At our Kendallville, Indiana, site, workers used wearable sensors that alerted them if they were using an unsafe posture during an eight-week pilot. At the end of their shifts, they received a safety score summary and recommendations to improve their score. During the pilot, safety scores improved over the testing period, and workers reported they took the information they learned to improve their ergonomic behavior and apply it to daily living tasks outside the job. Data analytics also allowed for insights into trends by time of day, job and shift. Dow is now testing a broader proof of concept to see if the technology can help identify high-risk ergonomic job tasks and identify controls for improvement.



# Employee Health & Safety

## Reporting and Investigating Safety Issues

Workers have direct line of sight to potential hazards. They are expected and encouraged to identify, report and intervene when unsafe or unhealthy work conditions are observed. They also positively recognize coworkers making safe choices. Worker input on hazards and solutions is part of local near-miss programs and leveraged where appropriate. Workers are protected from reprisal via our global Ethics policy, part of our Diamond Standard.

Apollo™ Root Cause Investigation methodology is used for all recordable injuries and near-miss situations where potential existed for a LIFE-impacting injury had something been different. Consistent use of the methodology ensures we understand the cause and take corrective actions at the point of the problem, as well as at the strategy and management system levels. Significant learnings are shared globally through our Learning Experience Report process.

Once hazards are identified, we follow the hierarchy of controls to identify feasible and effective solutions. Two loss-of-life incidents in 2018 triggered a global response and changes to our management system in 2019. A truck-rail collision at a crossing at one of our sites led to significant adjustments to our rail crossing warning and barrier systems, and the use of technology to monitor and improve traffic behaviors at our sites. An improved machine-guarding risk-assessment methodology was put in place globally in response to the second loss-of-life incident.

## Workers Covered by an Occupational Health and Safety Management System GRI 403-8

All employees and workers who are not employees but whose work and/or workplace is controlled by Dow are required to comply with 100% of health and safety management system requirements. We employ a comprehensive permit-to-work system that facilitates a robust dialogue around hazards and mitigation of such hazards for each task.

Regular review of our health and safety management is built in to evaluate its efficacy. Additionally, we maintain an independent internal audit process, with accountability flowing directly to our chief executive officer, independent of the Operations organization. The audit process ensures that every Company location, regardless of purpose, is audited every 3-5 years. Audit frequency is determined based on the relative risk of the activities at each location. Auditors are trained and certified in each topic area that they evaluate. Gaps identified in these internal audits are addressed via corrective or preventative actions captured in our global corrective and preventive action (CAPA) repository, with gap closure encouraged within 12 months of the audit.

In addition, more than 85% of our manufacturing sites globally receive some periodic external audit. These vary broadly depending on specific government requirements. For example, more than 85% of our large U.S. & Canada manufacturing sites participate in either OSHA Voluntary Protection Programs or Canadian Federation of Construction Safety Associations' Certificate of Recognition program (COR™). More than 50% of external audits globally cover most topics within the Responsible Care Code or ISO-14001.



## OUR PEOPLE

# Employee Health & Safety

Every Dow employee has access to occupational services at no cost through an on-site, Company-managed clinic or an offsite provider managed by Dow Health Services.

Clinical treatment is available to all employees for work-related injury or illness, and employees can access occupational health care on paid worktime.

In 2019, we had

**60 clinic locations.**

## DOW HEALTH SERVICES

### Employee Health and Well-Being GRI 403-3

With more than a century of experience in occupational health, Dow is committed to worker health protection. We have honed an effective, systematic approach to Total Worker Health™ that comprehensively controls workplace health risks, protects workers and improves the health of Dow people:

**Recognizing Hazards**



**Reducing Risks**



**Screening for Illness**



**Confirming the Effectiveness of Our System**



## Crisis Planning: Putting Worker Safety First

We maintain active crisis planning teams to monitor needs and ensure appropriate plans are in place for emerging health risks and/or pandemic. Crisis plans are activated when necessary and may include direct support for the community. With the COVID-19 pandemic in 2020, we took action to implement strict hygiene practices and take precautionary practices to protect the health and safety of our employees. Because the chemical sector is designated as critical infrastructure in many of the world's largest economies, our manufacturing sites were widely excluded from governmental shutdown orders. We followed all guidelines issued by the World Health Organization and U.S. Centers for Disease Control and Prevention as we managed daily operations. Local laws and restrictions in specific countries around the world also were followed.

### Some of the measures put in place included:

- Redoubling cleaning efforts across our sites
- Temperature screening
- Providing hand sanitizers and anti-bacterial surface wipes
- Promoting personal hygiene
- Ensuring ongoing stock and supply of employee personal protection equipment



# Employee Health & Safety



## Employee Health and Safety Teams GRI 403-4

At all Dow locations globally, workers can participate in Health and Safety teams at the facility and site level. At the local level, employees participate in incident root cause investigations, “fresh eyes” assessments, internal audits and numerous other continuous improvement activities. In most cases, these committees meet at least monthly with the primary purpose of reviewing and acting upon worker safety data and concerns, and developing implementation plans for new or improved government or Company health and safety requirements.

More than 80% of Dow workers globally are represented in joint-management worker safety committees as a result of government requirements or Company union agreements. In most cases, these committees meet at least monthly to review and act upon worker safety data and concerns, and develop implementation plans for new or improved government or Company health and safety requirements.

Employee Feedback for Continuous Improvement

>>

Safety Training GRI 403-5

>>



# Employee Health & Safety



## Employee Wellness GRI 403-6

Our commitment to worker health is not limited to occupational health risks. We started a comprehensive wellness program more than 30 years ago because we recognized the value of good health to our employees, their families and our communities.

Our well-being strategy is framed across four dimensions – physical, mental, community and financial well-being – for an approach that is holistic, global, employee-centered and outcome-driven.

### A Multi-Faceted Approach to Employee Well-Being

We support well-being across four pillars:

WORK	PEOPLE	PLACE	WORLD
Change job characteristics detrimental to well-being and help employees use their work to optimize well-being.	Foster supportive and valued relationships between employees and between employees and leaders; protect workers.	Create a supportive and thriving environment that enables the well-being of all employees and is conducive to healthy choices.	Realizing we can't achieve optimal well-being alone, we seek to create and implement solutions with our vendors, communities, peers, customers and governments.
			



# Employee Health & Safety

## Supporting Employee Well-Being

Our well-being objective is that 100% of Dow employees are their best self for work, home and play. Here’s a look at a few ways that we support employee well-being.

Healthy Culture Index



We track each site’s alignment with evidence-based best practice well-being strategies, including access to healthy foods, relaxation spaces, lactation support, peer and leader support for health, and access to physical activity.

Employee Assistance Program (EAP)



EAP is available to all employees and their families globally for help with general stress, substance use, financial struggles and family relations. Our EAP program also provides on-site emotional health support in response to a personal or work-related incidents.

Case Management



We help employees maneuver the healthcare systems, return to health as soon as possible and maintain their progress. This is offered globally through Dow Health Services and where available by local insurance or worker compensation providers.

Health Benefits



We seek to improve the health of Dow employees by removing barriers to access and pay for appropriate, quality healthcare around the world. This is done through both medical insurance and other health offerings for employees. The level of support is determined based on the needs of our workforce within a given geography.



OUR PEOPLE

# Employee Health & Safety

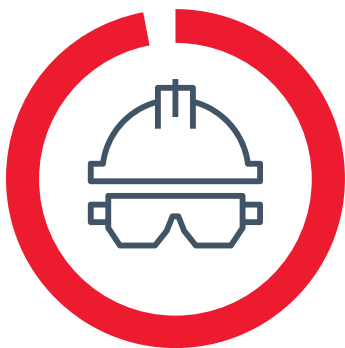


## Work-Related Injury and Illness GRI 403-9, GRI 403-10

It is core to our injury measurement and prevention efforts that we classify incidents by their potential to result in LIFE-altering consequences. This allows us to see and focus our prevention efforts on hazards that pose a greater likelihood of a high-consequence injury. We have a robust, globally tracked near-miss program for situations that did not result in an injury but could have been high consequence had something been slightly different. This non-injury potential LIFE event (pLIFE) data is reviewed weekly at the corporate level to ensure adequate investigation and to identify broadly leverageable learnings. This data is visible to all employees and built into dashboards along with actual injury information for every site, region and business across the Company. Our Corrective and Preventative Action (CAPA) program ensures that each incident investigated, including all that have a high-consequence potential, has robust corrective and preventative actions applied.

## Employee Opinion on Health & Safety

Our annual employee opinion survey shows that employees have high confidence in Dow’s approach to safety and health.



**97%**

indicated that they are held accountable for doing their work in a **manner that is safe**



**92%**

of people in my work area are **protected from health and safety hazards**



**69%**

indicated that the Dow culture **encourages employees to be their best self** both mentally and physically



### Highlight

In 2019, the top 130 leaders of Dow traveled to various Dow sites globally as part of our Global Leadership Team safety visit initiative.



# Focus Areas



## Global Citizenship

Through social investments, shared purpose and meaningful engagement, we are collaborating across the globe to build more sustainable and resilient communities where we live and work. Aligned to Dow’s ambition and fueled by volunteer service, our global citizenship strategy seeks to apply our innovative technology, employee expertise and culture of inclusion to generate transformational social impact.

## Our Areas of Focus:



## How We Make an Impact



**CHARITABLE INVESTMENTS** are one of the ways Dow gives back. In 2019, Dow gave more than \$32 million in grants and \$1.5 million in gift-in-kind donations.



**EMPLOYEE VOLUNTEERISM** is supported across the Dow world to advance economic and social progress in our communities.



# Focus Areas



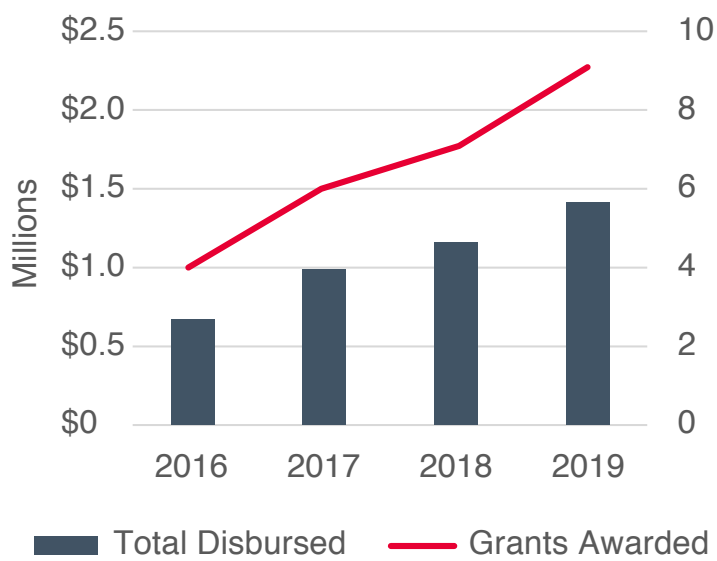
## Advancing Sustainable Solutions



We believe that sustainable business creates positive social change. By combining Dow products, technology and expertise with social impact, we create value for both business and society.

### Dow Business Impact Fund

The Dow Business Impact Fund unlocks business opportunities by solving social problems through our technology and expertise. Launched in 2016, the fund provides Dow businesses and partners significant seed funding to support social impact projects. In 2019, Dow distributed nearly \$1.5 million in seed money through its Business Impact Fund.



#### SOCIAL IMPACT

- Food waste
- Waste infrastructure
- Digital access
- Recycling/upcycling
- Entrepreneur support
- Safety
- Carbon mitigation
- Affordable housing
- Quality education



#### BUSINESS IMPACT

- Value chain enhancements
- New/improved partnerships
- New markets
- New uses for Dow innovation



#### EXTERNAL PARTNERS

- Nonprofits (e.g., Habitat for Humanity, Food Bank, USAID, etc.)
- School systems
- Local governments
- Universities
- Customers
- Brand owners
- Industry partners
- Value chain partners
- Suppliers
- Consultants

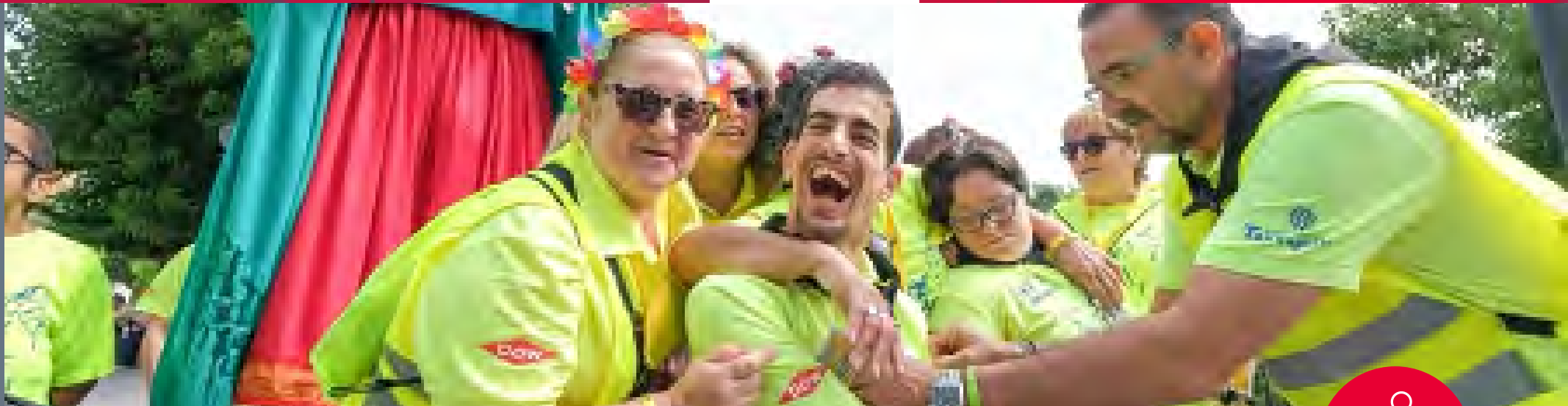


#### CONCEPT IDEA

- New uses for recycled plastics
- Sustainable practices in the textile industry
- Telecommunications access to impoverished communities
- Sustainable and affordable housing



# Focus Areas



## Building Inclusive Communities



By generating awareness of diversity-related challenges and supporting organizations that respect unique differences and perspectives, we cultivate inclusion in our communities. We also support future key community change makers – educators and students – in creating more inclusive environments in schools.

### ALL IN ERG Fund

The ALL *IN* ERG Fund provides Dow Employee Resource Groups (ERGs) with \$200,000 in seed grants to support inclusion programming in Dow communities across the globe. ERGs compete for funds and submit grant requests on an annual basis. In its first year, the ALL *IN* ERG Fund generated strong interest among our ERGs, with more than 140 grant requests submitted from across the globe. Twelve projects were chosen as finalists.

- **Entrepreneurship Support for Immigrants (Switzerland):** Dow ERGs are partnering with the Capacity Launch Programme, an entrepreneurship program for people with refugee and migrant backgrounds. Through pro bono volunteerism as career coaches and mentors, Dow employees will provide support and expertise to early-stage businesses.

- **Plastic for Wheelchairs (South Africa):** Together with the support of corporations, schools and volunteers, the Sweethearts Foundation provides wheelchairs to those in need through a Tops & Tags initiative, in which plastic bottle tops and bread tags are recycled in exchange for wheelchairs. Dow employees will work with local schools to expand collection sites, educate and build awareness of the plastics waste crisis, and help support the diversity and inclusion needs of people with disabilities.

- **LGBTQ+ Strategy/Approach (Texas):** This project supports and guides the creation of the first Brazoria County LGBTQ+ organization in partnership with the nonprofit Montrose Center to support all intersectional groups of the local LGBTQ+ community, including youth, seniors and families.





# Focus Areas



## Developing Tomorrow's Innovators



### Developing the Workforce of Tomorrow

Increasing access to science, technology, engineering and math (STEM) can inspire students and foster problem-solvers who will help create answers to tomorrow's world challenges. We aim to develop a diverse and ready workforce by increasing interest and preparedness in skilled manufacturing careers and by creating the next generation of diverse chemists and engineers.



### Boosting the Manufacturing Workforce



### Encouraging Tomorrow's Problem-Solvers





## Empowering Sustainable and Resilient Communities



### **Empowering Sustainable and Resilient Communities**

Across the world, we are taking action to spark positive and meaningful change in our communities, and we're collaborating with a variety of stakeholders to increase our impact and support local needs. We are committed to increasing the resiliency and vibrancy of the communities in which our employees and their families live, work, learn and play. In each community, our employees act as a catalyst for this positive change.

### **Strengthening Community Resilience**

In every geography, Dow volunteers are contributing to projects that are helping catalyze more inclusive and resilient communities.





GLOBAL  
CITIZENSHIP

# Engaging for Impact



## #TeamDow Engaging for Impact

We believe that an engaged team of employee volunteers can not only transform our communities but also positively impact our company culture and advance Dow's ambition. Dow's volunteer strategy, designed to support our 2025 Sustainability Goal Engaging Employees for Impact, activates our Global Citizenship priorities and investments, and promotes a positive employee experience.

## CASE STUDY: #PullingOurWeight

In 2019, more than 18,000 volunteers collected more than 175,000 pounds of trash at 175 different locations during our #PullingOurWeight campaign, a unique initiative that aims to increase awareness around responsible waste management and engage our employees and communities in addressing plastic pollution. This was the largest employee volunteer event for a single cause in Dow's history and demonstrated our company's commitment to a cleaner environment and a better world. [View the video here.](#)

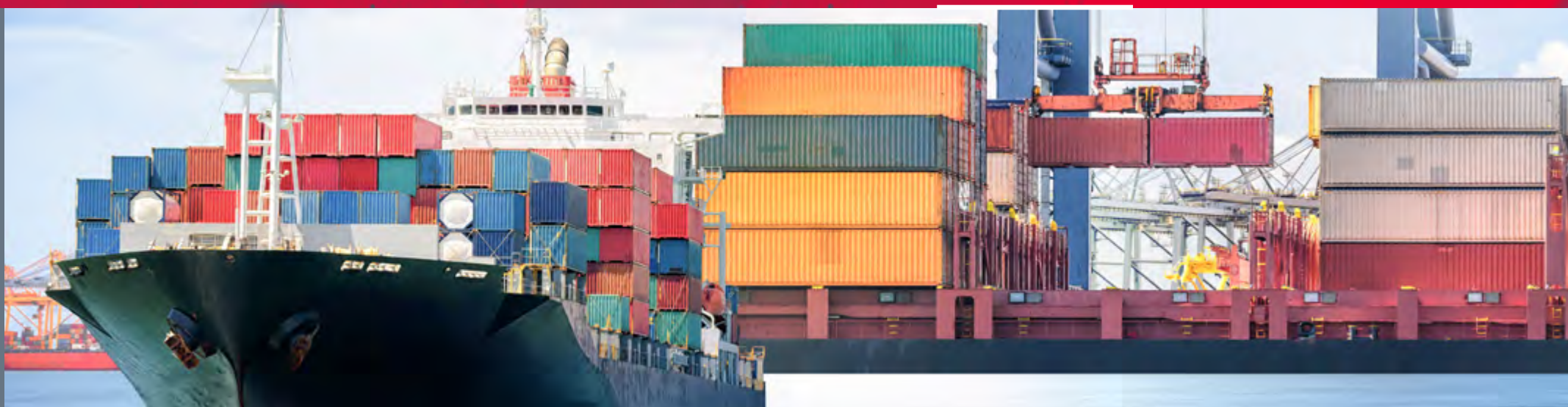




OUR SUPPLY CHAIN

# Approach

GRI 102-9



Sustainability is one of the four key tenants of our Integrated supply chain strategy and is a guiding factor in driving improvements throughout our global value chain. It guides how we source raw materials, manage the storage and transportation of our intermediates and products, and select, engage and manage our supplier partnerships. With operations across the globe, supply chain sustainability is critical to our success and core to our customer experience.

## Strategy in Action

We continue to put our supply chain strategy into action by driving forward our Green Transportation Strategy, executing our Transportation Stewardship Program, and advancing digitalization. We also recognize the importance of collaboration for long-term success and have further enhanced our already deep-rooted relationships with our logistic service providers, suppliers and customers by proactively identifying opportunities for sustainability-related supply chain projects and initiatives.

**>1,300**   
SERVICE PROVIDERS  
ACROSS ALL  
GEOGRAPHIC REGIONS

**>400**   
WAREHOUSES  
AND TERMINALS

**100B**   
POUNDS  
PER YEAR

**9,000**   
DELIVERIES  
PER DAY

Following separation from DowDuPont, our total volume of shipments has reduced, but our network remains as a global integrated supply chain servicing a similar geographic footprint. GRI 102-10

## Partnering through the Value Chain

Our supply chain success depends on partnerships throughout our end-to-end value chain with all of our stakeholders, from suppliers and logistics service providers to customers. By engaging in collaborations, we can drive sustainable business practices while improving supply chain capability and transparency through opportunities for sustainability-related supply chain projects and initiatives.



# Approach



## Green Transportation

Dow’s Green Transportation strategy consists of both internal activities to actively manage and reduce our impact, as well as external engagement to drive and promote sustainable logistics.

<b>Present a United Front on Transportation CO<sub>2</sub></b>	<ul style="list-style-type: none"><li>• Sustainability Awards</li><li>• Global Framework (GLEC)</li><li>• Public-Private Partnerships</li><li>• Logistics Purchasing</li></ul>
<b>Measure and Actively Manage Emissions Footprint</b>	<ul style="list-style-type: none"><li>• ISC Sustainability Training</li><li>• Modification of internal tools to include CO<sub>2</sub> as KPI</li><li>• Embedding Sustainability into ISC Project Trackers</li></ul>
<b>Leverage Long-Term Regulation and Technology Improvements</b>	<ul style="list-style-type: none"><li>• Stay informed on industry trends</li><li>• Partner with carriers on advanced technologies</li></ul>

There are a number of different ways that Dow is advancing this strategy:

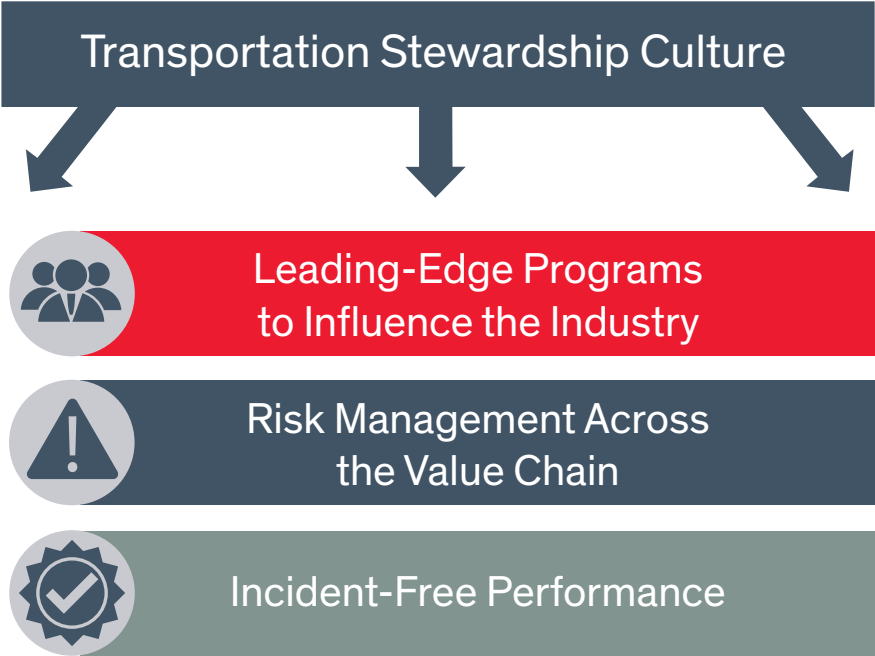


Transportation  
Stewardship



World-Leading Transportation  
Stewardship and Performance

Dow’s Transportation Stewardship Program is an extensive, holistic program focused on driving the industry toward a new standard of transportation safety and security. Dow achieved a number of milestones in 2019 by implementing several initiatives that support our commitment to strengthen transportation safety to reduce risk to people and the planet.



There are a number of different ways that Dow is advancing this strategy:



OUR SUPPLY CHAIN

## Transportation Stewardship



### **Breakthrough Innovations in Supply Chain Design**

At Dow, a key pillar of our Integrated Supply Chain strategy is our next-generation end-to-end supply chain capabilities. We are focused on revolutionizing our supply chain by investing in exploratory solutions that make big step changes, while seamlessly integrating these solutions with our traditional way of improving processes and operating models. To accomplish this, we are exploring, evaluating and experimenting with new and innovative technologies that will help us transform, while also continuing to provide stability and implement incremental solutions to meet the needs of today. Providing our employees with the resources and tools available to think outside of the box is key to advancing this strategy.

### **Advancing Transportation Safety and Sustainability with Technology**

Dow is an industry recognized leader when it comes to safety and sustainability. In order to maintain our leadership role in industry, Dow is utilizing technology in new ways to quantify and improve our safety and sustainability metrics. These tools and technologies will improve the customer experience through increased transparency and identification of improvement opportunities.



## OUR SUPPLY CHAIN

# Procurement/ Logistics



## Engaging Our Supply Chain Partners

Dow has approximately 38,000 suppliers in its supply chain and in approximately 100 countries, with a purchased managed spend of approximately \$20 billion. Our Procurement organization manages supplier relations, and we have Procurement Centers across the world to help establish effective relationships with global and local suppliers of goods and services. We work with our suppliers to pursue the principles of sustainability through Responsible Care®.

## 2019 Supplier Diversity Highlights

**>\$1B**  
in spend with small or  
diverse suppliers since  
inception of program

Tier II Reporting captured  
**\$80MM+**  
Driving diversity through the value chain

Supplier Diversity  
delivered  
**\$7MM**  
in EBIT

Increased  
engagement  
through  
sponsorship  
and event  
attendance

DiversityInc.  
Top 50  
Companies for  
Diversity  
Ranked **37**

Expanded International Presence  
**10 countries**



**1,000+**  
small and diverse suppliers

Benchmarked  
Advanced Process  
**4 out of 5**  
with Ralph G. Moore  
& Associates

Increased Certified Spend  
**50%+**



## Procurement/ Logistics



### Supplier Diversity

We are committed to promoting supplier diversity to advance equitable and sustainable business practices, support economic growth in the communities in which we work and live, and unlock innovative business practices and bottom-line value. Dow's Supplier Diversity initiative includes small businesses and diverse businesses identified as being owned by minorities, women, veterans (including service-disabled), LGBTQ+ and persons with disabilities.

Our Supplier Diversity initiative is part of our overall Inclusion & Diversity efforts with defined deliverables and key measures of success aligned to Corporate objectives. In 2019, we implemented a Tier II Reporting Program, influencing diversity throughout our value chain. We launched regional advisory councils to drive supplier diversity across 10 countries in which we live, work and do business. We also created a balanced scorecard, with a focus on the value proposition of Supplier Diversity, resulting in an approximately 50% increase in spend with third party Certified Diverse Suppliers. We will continue to measure, track and report our small and diverse business spend, which currently represents nearly \$1 billion of our total spend in the United States.

### Code of Business Conduct for Suppliers

Through the Dow Code of Conduct, we continue to engage new suppliers globally and communicate our expectations that all suppliers are compliant with regulations and Dow's values. We also continually review and refresh the Code of Business Conduct for Suppliers, completing a full analysis of our current standards and industry best practices to ensure that we're holding our suppliers to the highest standards regarding sustainability, human rights and environmental health and safety. The requirements of the Code of Business Conduct for Suppliers are built into all new and existing supplier contracts, to ensure they are contractually enforceable. Dow reserves the right to audit supplier compliance at any time. In the case where we identify less than adequate supplier practices, we reserve the right to discontinue business with the supplier. Annually, we've identified compliance issues in less than 0.1% of our supplier base, resulting in the immediate cessation of business.



## Procurement/ Logistics



### External Manufacturing

External Manufacturing (EM) refers to manufacturing services that are performed by an outside party on Dow's behalf using Dow's intellectual property. All external manufacturing suppliers are managed through a robust, risk-based work process that begins at project conception and extends through the conclusion of the business agreement. This work process includes a screening of process risks, a supplier selection process in which an initial on-site Environment, Health & Safety (EH&S) assessment is conducted, and regular EH&S audits. Criteria reviewed in these audits include the implementation of safety management systems and safe work practices, compliance with local regulations and permits, environmental and waste management practices, and incident history. EM contract agreements also specify that the manufacturer comply with Dow's Code of Business Conduct and the Fundamental EH&S Expectations for External Manufacturers.

### Logistic Service Providers

Leveraging our approach to our suppliers and external manufacturing suppliers, we also set high standards for our Logistic Service Providers (LSPs) by having in place an extensive risk-based program in order to qualify providers and established periodic follow-up assessments. These assessments include reviewing health and safety practices, labor practices, and environmental compliance and security. Assessments are conducted via work processes and external initiatives such as the Safety & Quality Assessment System, Chemical Distribution Institute Responsible Care® and Anti-Corruption Due Diligence. We also operate a detailed Distribution Risk Review process to ensure risks are adequately mitigated. Through our collaborative partnerships with our upstream and downstream stakeholders, we are able to implement sustainable business practices across our entire value chain.



### Highlight

In 2019, Dow collaborated with **>200 external manufacturers globally**, spending **>\$0.5B** on a diverse portfolio of technologies.



# Values



## Providing a Framework for Engagement and Progress

In everything we do, we are committed to respecting people, working with integrity and protecting the world’s resources. These are the values that inspire us daily and shape how we work with one another and with our partners. We integrate sustainability deeply into our business to create greater value for our company, society and the planet, and we engage a wide variety of stakeholders to ensure we’re focused on what matters most. To help us fulfill our commitments, we’ve put in place a strong governance structure to ensure our global sustainability program meets our business needs and support our company’s environmental and social goals.

### Dow Values



Integrity



Respect  
for People



Protecting  
Our Planet







## Values, Principles, Standards and Norms of Behavior GRI 102-16

Our people hold themselves and each other accountable to operate with integrity. As the global economy expands and the business environment increases in complexity, the Dow Code of Conduct provides a framework to focus our employees, officers and directors on our Values of Integrity and Respect for People, abide by the law and be highly principled and socially responsible in all of our business practices.

### Dow Code of Conduct

Dow's Code of Conduct (Code) summarizes the ethical principles and policies intended to deter and prevent corrupt activity such as bribery, and models appropriate ethical conduct. It also provides Dow's position on a wide array of topics including equal employment opportunity, respect in the workplace, and environment, health and safety. All Dow employees are expected to understand and comply with all Company policies and applicable laws, and must certify compliance with the Code annually. The Code was developed by the Office of Ethics and Compliance (OEC) and key stakeholders, and approved by Dow's Board of Directors upon the separation of Dow as an independent company on April 1, 2019. The Code is available in 16 languages.

### Office of Ethics and Compliance (OEC)

Dow established its OEC in September 1998 to reinforce the Company's long-standing commitment to ethical business conduct. The OEC communicates the Company's standards, provides guidance on issue related to ethical conduct and has oversight over mechanisms for action. This includes promoting lawful activity everywhere we do business, as well as helping the Company to manage risk, maintain a positive reputation and avoid litigation.





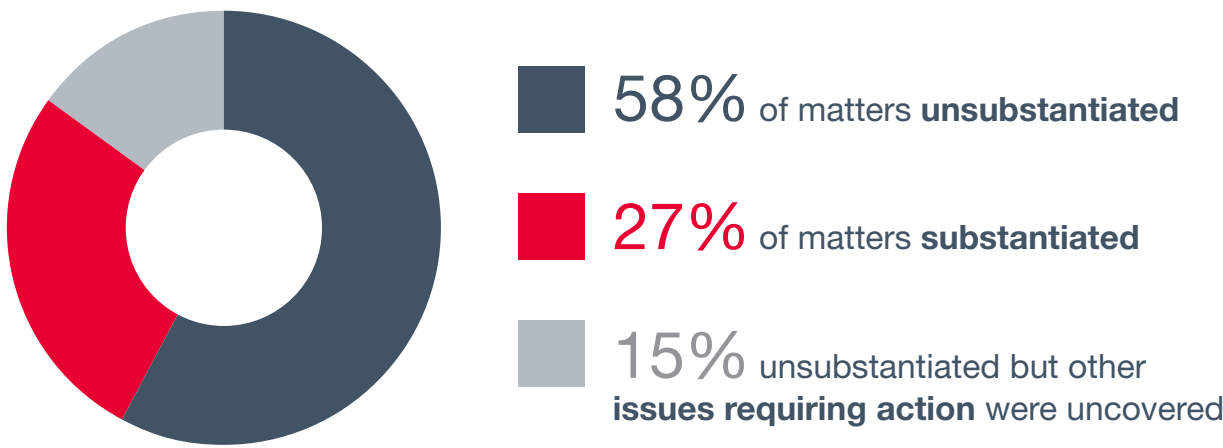
Mechanisms for Advice and Concerns about Ethics GRI 102-17

Our employees are expected to behave in a way that protects our business interests, our reputation and each other. This includes taking action to promptly report any conduct inconsistent with our Code of Conduct, our values or the law. The Office of Ethical Conduct (OEC) is responsible for communicating to all stakeholders the mechanisms that are in place to seek advice and report potential misconduct. These options are listed on Dow’s website and intranet page, on the OEC’s ethics and compliance training website, and in many other communications. We respect those who raise concerns about potential misconduct, and we will not tolerate retaliation against anyone who reports a potential violation in good faith.

2019 Ethics Reports

396  
matters  
reported to  
OEC

317  
warranted an  
investigation



**Types of issues:** Conflicts of Interest, Environmental Health & Safety, Human Resources, Misuse of Assets and Others. All issues that require corrective action are appropriately addressed.

NOTE: Data excludes matters investigated or reported in the first quarter of 2019 related to DuPont or Corteva businesses.





## Conflicts of Interest GRI 102-25

All employees and others working for Dow are expected to avoid personal activities and financial interests that could conflict with their Company responsibilities.

Code of  
Conduct/Code  
of Financial  
Ethics

LEARN MORE 

Corporate  
Governance  
Committee

LEARN MORE 

Annual  
Ethics and  
Compliance  
Certification

LEARN MORE 

## Delegating Authority GRI 102-19

Dow employs a systematic delegation of authority structure from the Dow Executive Leadership Team through the Company through a chain of command. Generally, this occurs from vice presidents to business directors, to leaders and then to specialists.

The full text of Dow’s Code of Conduct and Code of Financial Ethics is available [here](#).





## Review of Economic, Environmental and Social Topics and Communicating Critical Concerns GRI 102-31, GRI 102-33, GRI 102-34

Dow's reputation and license to operate are impacted by economic, environmental and societal events and developments over time and across geographies. We work to proactively identify trends and their impact, to establish enterprise-wide competencies and infrastructure, and to engage the appropriate internal and external expertise needed to minimize the impact of issues and events on Dow's reputation or business results.

Throughout the year, management reviews any critical concerns and actual results compared to the strategic plan with the Board and relevant committee(s). Executive management also is available to discuss company strategy, plans, results and issues with the committees and the Board. The independent Directors meet in executive session in connection with each regularly scheduled meeting of the Board, and at other times as they may determine appropriate, and the committees typically meet in executive session in connection with every committee meeting. In addition, the Audit Committee holds separate executive sessions with the lead client service partner of the independent registered public accounting firm, internal auditor, general counsel and other management as appropriate.

The Board and members of the management team continued extensive outreach to stockholders throughout the year, engaging with investors who collectively held more than 50% of outstanding shares of common stock of the company. Through this outreach, the management team updated investors on a range of topics, including the separation with DowDuPont, the overall business strategy, current business conditions, corporate citizenship and sustainability, corporate governance practices and executive compensation. They also gained an understanding of the perspectives and concerns of each investor. The Board and management team carefully consider the feedback from these meetings when reviewing the business, corporate governance and executive compensation profiles.



# Defined Benefit Plan Obligations



## Defined Benefit Plan Obligations and Other Retirement Plans GRI 201-3

We have both funded and unfunded defined benefit pension plans that cover employees in the United States and a number of other countries. The U.S. qualified plan is the largest plan. Benefits for employees hired before January 1, 2008, are based on length of service and the employee's three highest consecutive years of compensation. Employees hired after January 1, 2008, earn benefits that are based on a set percentage of annual pay plus interest.

Our funding policy is to contribute to the plans when pension laws and/or economics either require or encourage funding.

- In 2019, 2018 and 2017, we contributed \$261 million, \$1,651 million and \$1,672 million, respectively, to our continuing operations pension plans, including contributions to fund benefit payment for our non-qualified pension plans (\$266 million, \$1,656 million and \$1,676 million, including contributions to plans of discontinued operations).
- In the third quarter of 2018, we made a \$1,100 million discretionary contribution to our principal U.S. pension plan, which is included in the 2018 contribution amount above. The discretionary contribution was primarily based on our funding policy, which permits contributions to defined benefit pension plans when economics encourage funding, and reflected considerations relating to tax deductibility and capital structure.
- The Company expects to contribute approximately \$290 million to its pension plans in 2020.

Detailed disclosure about pension plans and other post-retirement benefits can be found in the 2019 10-K. Updates to the 2020 contribution estimates can be found within the Dow 1Q2020 10-Q.

## Restatements of Information GRI 102-48

Applicable values in the Financial Highlights table on page 11 values for 2018 have been updated in accordance with the Current Report on Form 8-K for Dow Inc. and TDCC, filed with the U.S. Securities and Exchange Commission on July 25, 2019 ("Form 8-K"), which recast portions of the TDCC Annual Report on Form 10-K for the year ended December 31, 2018 ("2018 10-K") to reflect the results of Dow and its consolidated subsidiaries, after giving effect to the distribution to DowDuPont of TDCC's agricultural sciences business and specialty products business and the receipt of DuPont's ethylene and ethylene copolymers businesses (other than its ethylene acrylic elastomers business) from the closing of the Merger on August 31, 2017. The information included in the Form 8-K is not an amendment to or restatement of the 2018 10-K.

Environmental metrics reported over several years have been recalculated to reflect the scale of the organization following separation from DowDuPont. The restatements of data can be seen by comparing the summary chart on page 27 with the corresponding summary chart on page 83 of the 2018 Dow Sustainability Report and comparing charts throughout the Environmental Impacts section of this report on pages 28 through 40 with pages 86 through 95 of the 2018 Dow Sustainability Report.



## GOVERNANCE

# Risk Management



Did You Know?

Because **96%** of all manufactured goods are **directly touched by the business of chemistry**, our industry has a significant role to play in addressing sustainable issues such as climate change and food waste.

## Managing Key Impacts, Risks and Opportunities GRI 102-29, GRI-102-30

To deliver value to our customers, employees, communities and shareholders, we must understand and manage the impacts, risks and opportunities faced across our entire enterprise. We use a number of tools to identify and prioritize risks and opportunities, including a sustainability materiality assessment, a stakeholder engagement process and our Enterprise Risk Management process.

Risk management is a strategic activity within Dow, and our ability to manage risk creates opportunity as well. Corporate-level identification and management of risk is systematically accomplished using an integrated Enterprise Risk Management approach. The Board of Directors oversees the overall risk management process. Responsibility for managing risk rests with executive management. Potential risks include the impact of weather-related events, access to credit, effect of foreign currency exchange rate movements, and volatility in purchased feedstock and energy costs. Risk management results are regularly communicated to the chief financial officer. The Audit Committee is responsible for overseeing that management implements and follows this risk management process and for coordinating the outcome of reviews by the other committees in their respective risk areas, including the Environment, Health, Safety & Technology Committee for risk relating to safety, health or the environment. This includes regulatory developments, sustainability trends, intellectual property protection and significant operational events, among others. A formal review of Enterprise Risk Management is conducted annually by the Audit Committee and the Board.



GOVERNANCE

# Risk Management



Risk factors that have been determined to be financially material to the company related to sustainability include: [GRI 102-15](#)

A complete statement of risk factors can be found on page 17 of the 2019 10-K, which can be downloaded [here](#).



# Risk Management

## Safer Materials GRI 416-1

All products are assessed in an appropriate manner – depending upon EH&S profile, application and exposure potential – for improvement opportunities as part of Dow’s EH&S management approach at each stage of the product life cycle.



## Precautionary Principle or Approach GRI 102-11

As a responsible corporate citizen, Dow continues to use a well-defined process for assessing and managing risks in the face of uncertainty. This process is science-based, ensuring decision-making includes an appropriate evaluation of risk and benefits. It applies to current products as well as those under development.

We support a precautionary approach as set out in Principle 15 of the Rio Declaration on Environment and Development and view the precautionary principle as an application of the principles of risk assessment and risk management. Risk assessment includes hazard identification, characterization, exposure assessment and risk assessment. Risk management encompasses the identification, selection and implementation of alternative actions for addressing risk through the control of identified hazards(s) and/or exposure.

We believe that approaches should be risk-based and cost-effective. Additionally, the selected chemical management approach should be:

- Proportional to the objective being pursued.
- Provisional.
- The least burdensome option that provides adequate protection from the risk.



Climate Change Risks and Opportunities GRI 201-2

In order to evaluate risks and opportunities associated with climate change, we have analyzed various climate change scenarios. Four boundary scenarios have been considered in evaluating the impacts of climate change and the impacts to Dow:

Climate Change Scenarios

	Hot Air	Pollution Mitigation	Carbon Cap	Carbon Tax
Description	<ul style="list-style-type: none"><li>World energy grows at historic rate and with the same fuel mix</li><li>Temp increase of 6°C above pre-industrial levels</li></ul>	<ul style="list-style-type: none"><li>China: aggressive coal reduction and NG growth</li><li>Less polluting fossil fuels in residential and transportation</li></ul>	<ul style="list-style-type: none"><li>Temp increase below 2°C</li><li>Global cap on carbon emissions</li><li>Digital and technological innovation</li></ul>	<ul style="list-style-type: none"><li>U.S. implements a \$40/ton CO<sub>2</sub> wellhead tax</li><li>Import tariff retaliation from EU – China</li><li>Global policies fractured</li></ul>
2040 Fuel Mix	<p>Demand: 840 EJ</p>	<p>Demand: 840 EJ</p>	<p>Demand: 620 EJ</p>	<p>Demand: 790 EJ</p>
Energy Demand Growth	40%	40%	10%	33%

Sources for fuel mix:

- Hot Air: International Energy Agency, Energy Technology Perspectives 2015 – <https://www.iea.org/etp/etp2015/> – 6D Scenario.
- Pollution Mitigation: Dow analysis.
- Carbon Cap: International Energy Agency, Energy Technology Perspectives 2015 – <https://www.iea.org/etp/etp2015/> – 2D Scenario.
- Carbon Tax: MIT Joint Program on the Science and Policy of Global Change.

Climate-Related Risk Management

The potential implications of our climate-related issues on a regulatory front include but are not limited to an increased cost of purchased energy, additional capital costs for installation of GHG-emitting equipment, and direct costs associated with GHG emissions. We proactively incorporate a carbon price into our business planning and risk management strategies, even in jurisdictions without existing carbon legislation. We also have a dedicated commercial group to handle energy contracts and purchases, including managing emissions. Operationally, climate change may result in severe weather events, such as storms and droughts, which can disrupt operations. We have engineered our susceptible facilities, particularly on the U.S. Gulf Coast, to better withstand severe weather and rising sea levels, and we continue to study the long-term implications of changing climate parameters on water availability, plant siting issues and other impacts.



GOVERNANCE

# Materiality



As a result of the team’s assessment, **four topics were added to Dow’s prior list of material topics:** GRI 102-49

---

---

---

---

---

We will assess our ability to report on the required disclosures through 2020.

## 2019 Materiality Assessment GRI 102-46

After completing our separation from DowDuPont, Dow conducted a comprehensive update to our materiality assessment in 2019 to determine topics that are material for disclosure based on their impact on economies, the environment, society and our stakeholders.

A team of subject matter experts who provided the voice of stakeholders were asked to describe each potential material topic as it relates to Dow’s products and activities, including where the impacts occur. Questions included:

- How do Dow’s products and activities **impact economies?**
- How do Dow’s products and activities **impact the environment?**
- How do Dow’s products and activities **impact society?**
- How do Dow’s products and activities **impact the decisions of our stakeholders?**\*

Team Representation	Expertise	Stakeholder Voice Represented
Sustainability Directors and Managers	Sustainability context, frequent external engagement on sustainability topics and the impact of Dow and the industry	Employees, customers, suppliers, community/society, regulators, shareholders/investors
VP of Investor Relations	ESG as a driver of investment decisions	Shareholders/investors
Energy and Climate Change Directors and Managers	Energy and climate policy, impact of Dow	Suppliers, customers, regulators, community/society
Corporate Reporting Manager	External disclosure requirements, corporate reputation	Regulators, shareholders/investors
Finance Director	Financial impact of Dow’s activities	Community/society, shareholders/investors
Enterprise Risk Management Manager	Integrated risk management process	Community, regulators, shareholders/investors
Commercial and Customer Experience Director	How sustainability topics relate to Dow’s business unit decisions	Customers
Environmental Directors	Environmental regulations, impacts	Regulators, customers, community/society
2025 Sustainability Goal Team Leaders	Impact of Dow’s activities	Community/society, employees

*\*Including suppliers, employees, customers, community/society, regulators, shareholders/investors*



GOVERNANCE

Materiality



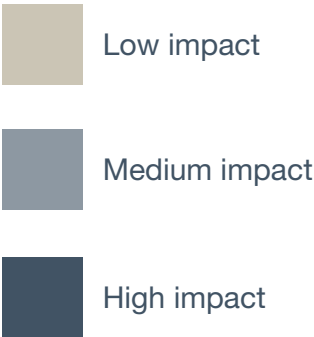
Assessing Our Material Impacts GRI 102-44, GRI 102-46, GRI 102-47

The chart below indicates the scale of impact of Dow’s products and activities on economies, the environment and society, and the scale of influence on the assessments and decisions of our stakeholders for each of our identified material topics.

For each topic, the scale of impact is indicated as low, medium, or high based on input of the materiality assessment team.

Topic

	Impact of Dow’s products and activities on the economy, environment and society			Impact of Dow’s products and activities on the assessments and decisions of our stakeholders					
	Economy	Environment	Society	Suppliers	Employees	Customers	Community/ Society	Regulators	Shareholders/ Investors
Safe chemistry	Low impact	Medium impact	Low impact	Low impact	Low impact	High impact	Medium impact	Medium impact	Low impact
Circular economy	Medium impact	High impact	High impact	Low impact	Low impact	Low impact	Medium impact	Low impact	Low impact
Plastic waste in the environment	Medium impact	High impact	High impact	Low impact	Medium impact	Low impact	Medium impact	Medium impact	Low impact
Economic performance	High impact	Low impact	Medium impact	Low impact	Medium impact	Low impact	Medium impact	Low impact	High impact
Materials	Low impact	High impact	Low impact	Medium impact	Low impact	Low impact	Low impact	Low impact	Low impact
Energy	Medium impact	High impact	Medium impact	Low impact	Low impact	Medium impact	Low impact	Medium impact	Low impact
Water and effluents	Medium impact	High impact	Medium impact	Low impact	Low impact	Low impact	Medium impact	Low impact	Low impact
Biodiversity*	Low impact	Medium impact	Low impact	Low impact	Low impact	Medium impact	Medium impact	Low impact	Low impact
Emissions	Medium impact	High impact	High impact	Low impact	Low impact	Medium impact	High impact	Medium impact	Low impact
Effluents and waste	Low impact	High impact	Medium impact	Low impact	Low impact	Low impact	Medium impact	Medium impact	Low impact
Environmental compliance	Low impact	Medium impact	Low impact	Low impact	Low impact	Low impact	Medium impact	High impact	Low impact
Supplier environment assessment*	Low impact	Medium impact	Low impact	Medium impact	Low impact	High impact	Low impact	Low impact	Low impact
Employment	Medium impact	Low impact	Medium impact	Low impact	High impact	Low impact	High impact	Low impact	Low impact
Occupational health and safety	Low impact	Low impact	Medium impact	Low impact	High impact	Medium impact	Low impact	Low impact	Low impact
Training and education*	Low impact	Low impact	Low impact	Low impact	High impact	Low impact	Medium impact	Low impact	Low impact
Diversity and equal opportunity	Low impact	Low impact	High impact	Low impact	Medium impact	Low impact	Low impact	Low impact	Low impact
Local communities	Medium impact	Low impact	Medium impact	Low impact	Low impact	Low impact	High impact	Medium impact	Low impact
Supplier social assessment*	Low impact	Low impact	Medium impact	Medium impact	Low impact	High impact	Low impact	Low impact	Low impact
Customer health and safety	Low impact	Low impact	Medium impact	Low impact	Low impact	High impact	Low impact	Medium impact	Low impact



\*Topics determined to be material for inclusion in Dow’s sustainability reporting for the first time in 2019.



GOVERNANCE

# Stakeholder Engagement



## Engaging Our Stakeholders

Engaging stakeholders and establishing collaborative partnerships is an essential element of our sustainability strategy. By engaging with a wide variety of stakeholders on a regular basis, we build a clearer understanding of complex global challenges and of the local conditions in the countries where we do business.

The fundamental principles of Dow’s ongoing engagement strategy are:

- Information sharing and disclosure
- Participating in active dialogue
- Collaborating on issues of mutual interest

The overall purpose of engagement is to advance business objectives while building Dow’s reputation.

GRI 102-42, GRI 102-43

Stakeholder Group <small>GRI 102-40</small>	Mechanism and Frequency of Engagement
Customers	Customers are engaged frequently throughout the year through events, meetings, emails, surveys and social media. Dow’s commercial and sustainability functions work together to provide appropriate engagement to customers on sustainability topics.
Suppliers	Suppliers are engaged frequently throughout the year through calls, emails and surveys.
Employees (and prospective employees)	Employees are engaged frequently throughout the year through surveys, emails, internet postings, individual conversations, meetings, training and others. Numerous opportunities are provided for employees at all levels to provide input to sustainability practices and strategy.
Community/Society	Communities are engaged regularly through meetings and other communication with groups including Community Advisory Panels, United Way, Habitat for Humanity, Keep America Beautiful and others. Wider communication with communities is through social media.
Regulators	Regulators are engaged as part of normal operations for Dow teams through meetings, emails and calls. These engagements can be standard sharing of information or more detailed conversations about particular regulatory issues of interest.
Shareholders/Investors	Shareholders and investors are engaged regularly through meetings, conferences and the media. Dow’s Investor Relations function works to deliver relevant information about Dow’s activities and collect information about shareholder and investor sustainability priorities and strategies.

The key topics of interest to each stakeholder group are mapped to material sustainability topics [here](#).



### Did You Know?

When launched in 1992, Dow’s Sustainability External Advisory Council (SEAC) was the first of its kind in the petrochemical industry.



### Highlight

In 2019, we implemented a company-wide employee listening strategy to gather more frequent and relevant feedback from employees.



GOVERNANCE

# Stakeholder Engagement



>38 CAPs in Dow communities

REPRESENTING:



Healthcare



Business



Education



Nonprofits



Law Enforcement

PROVIDING FEEDBACK FOR:



Dow's  
Operations



Safety



Environmental  
Priorities



Community  
Involvement

## Engaging Communities GRI 413-103, GRI 413-1, GRI 413-2

At Dow, we believe our decision-making processes are improved when we involve the community. With sites in 31 countries, Dow has a daily presence in small towns and cities around the world as a neighbor, community leader, employer and manufacturer. Understanding the needs of the communities where Dow has locations, and responding in a constructive and appropriate way, is part of our role as a community member and one to which we are deeply committed.

## Community Advisory Panels (CAPs)

Dow has been an industry leader in establishing and using CAPs in the communities where we have operations. Dow's CAPs represent a broad cross-section of local interests, including healthcare, education, civic engagement, law enforcement and local business. The CAPs operate in more than 38 of our global manufacturing communities and help us engage in ongoing and open communication regarding Dow's operations, safety programs, environmental conditions, community interaction and other aspects of the company and plant.

Feedback from CAPs enables Dow to be responsive in addressing a community's quality of life needs and helps identify where the company can have the greatest impact. Dow continually refreshes its CAPs to maximize value for both Dow and the community. To find new ways to expand their reach, CAP members also engage other community residents by inviting them to Dow-hosted events. This results in greater feedback by residents and more awareness-building about Dow within the community.

## Community Surveys

Dow also measures its impact as a corporate citizen and identifies concerns through periodic community assessment surveys at select sites. These surveys generate feedback related to quality of life issues, Dow's "rightful role" in a community and also provide direct recommendations on opportunities where Dow can have a positive impact. We address these and many more issues through our local site Community Success Plans.



Stakeholder Engagement

Engaging Globally

Our collaborations help expand the impact of our actions and take an innovative approach to the challenges facing our industry and the world.

External Initiatives GRI 102-12

Responsible Care Management System	Voluntary initiative of the global chemical industry, a requirement of membership in the American Chemistry Council.
United Nations Global Compact (UNGC)	Voluntary participant since 2007. Requires commitment to meet fundamental responsibilities and report progress in four areas: human rights, labor, environment and anti-corruption. Caring for Climate signatory.
Sustainable Packaging Coalition	Founding partner. Helped initiate a store drop-off program for hard-to-recycle plastics.
Trash Free Seas Alliance (TFSA)	Founding member of this voluntary, by-invitation alliance in 2012. The Alliance unites industry, science and conservation leaders who share a common goal for a healthy ocean free of trash. The Alliance provides a constructive forum focused on identifying opportunities for cross-sector solutions that drive action and foster innovation.
Keep America Beautiful (KAB)	Voluntary corporate partner. Greg Jozwiak, corporate vice president of Integrated Supply Chain, is a board member. Howard Ungerleider, chief financial officer, is honorary chair.
CEO Water Mandate	Voluntary participant since 2008. The CEO Water Mandate mobilizes a critical mass of business leaders to address global water challenges through corporate water stewardship, in partnership with the United Nations, governments, civil society organizations and other stakeholders.
Ellen MacArthur Foundation (EMF)	Voluntary member of the Circular Economy 100 (CE100) since 2016. The CE100 network facilitates market-making by providing collaborative and pre-competitive opportunities that bring together business, innovators, cities and governments, universities and thought leaders.
Operation Clean Sweep (OCS)	Pledged partner in this initiative of the American Chemistry Council designed to prevent and help keep plastic out of the marine environment.
Alliance to End Plastic Waste (AEPW)	Founding member of organization with the goal to develop and scale solutions that manage plastic waste and promote post-use solutions of plastic.
Circulate Capital	Founding investor in effort to incubate and finance companies and infrastructure that prevent waste in oceans.
Task Force on Climate-Related Financial Disclosures (TCFD)	In June 2017, Dow committed to implement the recommendations of the Task Force to be transparent about risks due to climate change and our corporate response. Our chief sustainability officer serves as a member of the Task Force.
World Business Council for Sustainable Development (WBCSD)	WBCSD is a global, CEO-led organization of over 200 leading businesses working together to accelerate the transition to a sustainable world. Dow experts participate on numerous WBCSD work groups.



# Report Information



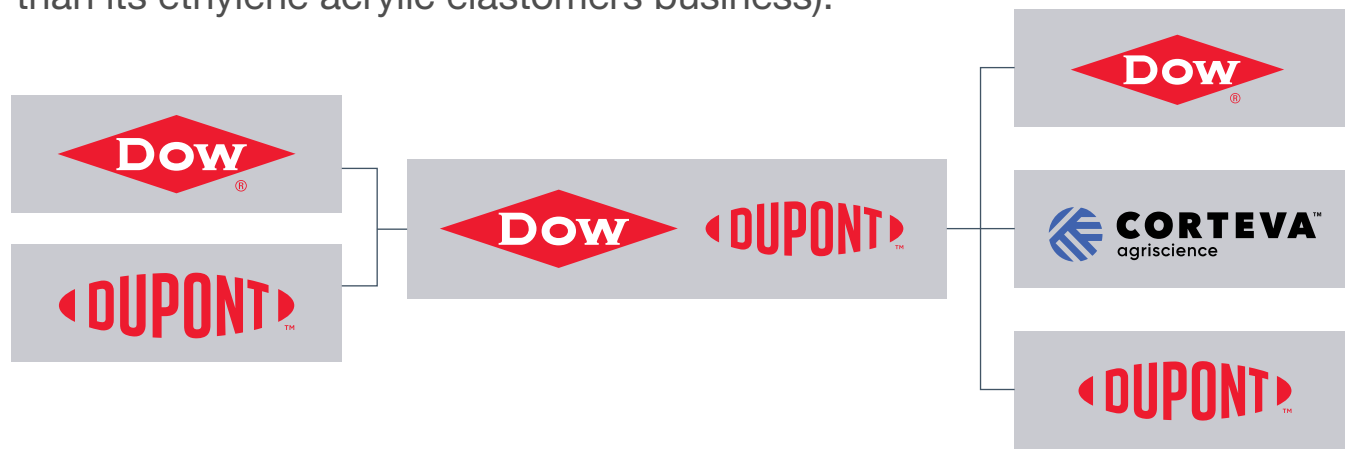
## Significant Changes to the Organization and its Supply Chain GRI 102-10

On April 1, 2019, DowDuPont Inc. (“DowDuPont” and effective June 3, 2019, n/k/a DuPont de Nemours, Inc. or “DuPont”) completed the separation of its materials science business and Dow Inc. became the direct parent company of TDCC and its consolidated subsidiaries.

The separation was contemplated by the merger of equals transaction effective August 31, 2017, under the Agreement and Plan of Merger, dated as of December 11, 2015, as amended on March 31, 2017. TDCC and E.I. du Pont de Nemours and Company and its consolidated subsidiaries (“Historical DuPont”) each merged with subsidiaries of DowDuPont and, as a result, TDCC and Historical DuPont became subsidiaries of DowDuPont (the “Merger”). Subsequent to the Merger, TDCC and Historical DuPont engaged in a series of internal reorganization and realignment steps to realign their businesses into three subgroups: agricultural sciences, materials science and specialty products. Dow Inc. was formed as a wholly owned subsidiary of DowDuPont to serve as the holding company for the materials science business.

### Basis of Presentation

The information in this Report reflects the activities conducted by the materials science business of Dow and its consolidated subsidiaries for the full reporting period from January 1 to December 31, 2019, after giving effect to the distribution to DowDuPont of TDCC’s agricultural sciences business and specialty products business and the receipt of Historical DuPont’s ethylene and ethylene copolymers business (other than its ethylene acrylic elastomers business).



Additional details can be found in the [2019 Dow Form 10-K](#) and the [2020 Proxy Statement](#).



ADDITIONAL  
INFORMATION

# Independent Assurance Statement



## Independent Assurance Statement to Dow Inc GRI 102-56

Dow Inc (Dow) engaged ERM Certification and Verification Services (ERM CVS) to provide limited assurance in relation to the Dow 2019 Sustainability Report (the Report), as set out below.

	Engagement summary
Scope of our assurance engagement	Whether Dow has prepared the Report in accordance with the GRI Standards: Comprehensive option. Whether Dow’s reported progress against its 2025 Sustainability Goals is fairly presented, in all material respects, in accordance with its internal reporting criteria.
Reporting criteria	GRI Standards (2016) except for GRI 403 (2018): Occupational Health and Safety and GRI 303 (2018): Water and Effluents. Dow Chemical 2025 Sustainability Goals.
Assurance standard	ERM CVS’ assurance methodology, based on the International Standard on Assurance Engagements ISAE 3000 (Revised).
Assurance level	Limited assurance.
Respective responsibilities	Dow is responsible for preparing the Report and for the collection and presentation of the information within it. ERM CVS’s responsibility is to provide conclusions on the agreed scope based on the assurance activities performed and exercising our professional judgement.

### Our conclusions

Based on our activities, as described below:

- Nothing has come to our attention to indicate that the report has not been prepared in accordance with the GRI Standards: Comprehensive option;
- Nothing has come to our attention to indicate that reported progress against Dow’s 2025 Sustainability Goals is not fairly presented, in all material respects, in accordance with internal reporting criteria.

### Our assurance activities

We planned and performed our work to obtain all the information and explanations that we believe were necessary to provide a basis for our assurance conclusions. A multi-disciplinary team of sustainability and assurance specialists performed the following assurance procedures:

- Webex and conference calls with Dow corporate employees to:
  - Interview management representatives in order to understand Dow’s sustainability strategy, policies and management systems for the relevant disclosures;
  - Interview 2025 Sustainability Goal project teams in order to understand the current status and progress of the goals and the basis on which performance is determined;
  - Review internal reporting guidelines, including reporting databases as well as any associated conversion factors used;
  - Review the completeness of data reported by all sites and the effectiveness of the internal review (QA/QC processes), including the consolidation process;
  - Review performance during the reporting period against the 2025 Sustainability Goals; and



## ADDITIONAL INFORMATION

# Independent Assurance Statement



- Review a sample of qualitative and quantitative evidence supporting the reported information;
- Checking consistency of financial data and other information with Dow's 2019 10K report;
- Confirming the consistency of the reported information with our understanding of Dow's business, operations, sustainability strategy and prior reporting;
- Reviewing external media reporting relating to Dow to identify relevant sustainability issues in the reporting period;
- Reviewing the report content and GRI Content Index for completeness and accuracy against the criteria for 'in accordance with GRI Standards: Comprehensive option'; and
- Checking the presentation of the information relevant to the scope of our work in the Report to ensure consistency with our findings.

### The limitations of our engagement

The reliability of the assured data is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. We did not undertake source data verification at any operated facilities. It is important to understand our assurance conclusions in this context.

Our independent assurance statement provides no assurance on statements in the report regarding future performance or on whether Dow will achieve its stated goals.

During our assurance engagement, travel restrictions were imposed following the outbreak of COVID-19. As a result of this we replaced the planned 'in person' head office visit with a 'virtual' visit via video calls for this year's assurance engagement.

A handwritten signature in black ink, appearing to read "J. Rogers".

Jennifer Iansen-Rogers  
Head of Corporate Assurance



**16 June 2020**

ERM Certification and Verification Services, London

[www.ermcvs.com](http://www.ermcvs.com); email: [post@ermcvs.com](mailto:post@ermcvs.com)

ERM CVS is a member of the ERM Group. The work that ERM CVS conducts for clients is solely related to independent assurance activities and auditor training. Our processes are designed and implemented to ensure that the work we undertake with clients is free from bias and conflict of interest. ERM CVS staff that have undertaken this engagement have provided no consultancy related services to Dow in any respect.



ADDITIONAL  
INFORMATION

GRI Content  
Index



GRI Content Index

We prepared this report in accordance with the Global Reporting Initiative (GRI) Standards Comprehensive option. This Index of Content serves as a navigation tool for the GRI standards. GRI 102-55

GRI Standard/Disclosure		Page Number(s)/Location	Omission	Corresponding SASB Disclosure
1. Organizational Profile				
102-1	Name of the organization	10		
102-2	Activities, brands, products, and services	13-16		RT-CH-000
102-3	Location of headquarters	12		
102-4	Location of operations	12		
102-5	Ownership and legal form	10		
102-6	Markets served	13-16		
102-7	Scale of the organization	10-11	Confidentiality constraints. In the interest of confidentiality and competitiveness, Dow does not report quantity of products or services provided.	
102-8	Information on employees and other workers	45		
102-9	Supply chain	66		
102-10	Significant changes to the organization and its supply chain	88, 66		
102-11	Precautionary principle or approach	81		
102-12	External initiatives	87		
102-13	Membership of associations	87		
2. Strategy				
102-14	Statement from key decision-maker	5-8		
102-15	Key impacts, risks, and opportunities	79, 80		
3. Ethics and Integrity				
102-16	Values, principles, standards and norms of behavior	74		
102-17	Mechanisms for advice and concerns about ethics	75		



## ADDITIONAL INFORMATION

# GRI Content Index



GRI Standard/Disclosure		Page Number(s)/Location	Omission	Corresponding SASB Disclosure
4. Governance				
102-18	Governance structure	The governance structure of the organization, including committee responsibility is described at <a href="https://investors.dow.com/en/corporate-governance/default.aspx">https://investors.dow.com/en/corporate-governance/default.aspx</a> . The Environment, Health, Safety & Technology Committee of the Board assists the Board of Directors in fulfilling its oversight responsibilities with respect to environment, health, safety, corporate social responsibility, public policy, philanthropy, corporate reputation, and science and technology as described in its charter.		
102-19	Delegating authority	76		
102-20	Executive-level responsibility for economic, environmental and social topics	Mary Draves, chief sustainability officer and vice president of Environment, Health & Safety (EH&S), is responsible for EH&S and leading the definition and implementation of the Company's sustainability strategy. Draves reports directly to Jim Fitterling, chairman and chief executive officer.		
102-21	Consulting stakeholders on economic, environmental and social topics	Refer to Page 6 of the 2020 Dow Proxy Statement which can be downloaded here: <a href="https://investors.dow.com/en/financial-reporting/default.aspx#sec-filings">https://investors.dow.com/en/financial-reporting/default.aspx#sec-filings</a> .		
102-22	Composition of the highest governance body and its committees	The composition of the Board and its Committees can be found at <a href="https://investors.dow.com/en/corporate-governance/default.aspx">https://investors.dow.com/en/corporate-governance/default.aspx</a> and summarized starting on page 2 of the 2020 Dow Proxy Statement which can be downloaded here: <a href="https://investors.dow.com/en/financial-reporting/default.aspx#sec-filings">https://investors.dow.com/en/financial-reporting/default.aspx#sec-filings</a> .		
102-23	Chair of the highest governance body	Prior to the separation from DowDuPont, Jeff M. Fettig served as non-employee executive chairman of the board of DowDuPont while Dow operated as the Materials Science Division of DowDuPont. From April 1, 2019, Jeff M. Fettig served as the non-employee executive chairman of the board of Dow. Jim Fitterling was appointed Chairman of the Board in addition to his role as chief executive officer on April 9, 2020. At that time, the independent Directors elected Jeff M. Fettig as Lead Director with significant responsibilities detailed on page 2 of the Corporate Governance Guidelines which can be downloaded at <a href="https://investors.dow.com/en/corporate-governance/default.aspx">https://investors.dow.com/en/corporate-governance/default.aspx</a> .		
102-24	Nominating and selecting the highest governance body	Refer to the Dow Corporate Governance Guidelines and Bylaws which can be downloaded at <a href="https://investors.dow.com/en/corporate-governance/default.aspx">https://investors.dow.com/en/corporate-governance/default.aspx</a> .		



## ADDITIONAL INFORMATION

# GRI Content Index



GRI Standard/Disclosure		Page Number(s)/Location	Omission	Corresponding SASB Disclosure
102-25	Conflicts of interest	76		
102-26	Role of highest governance body in setting purpose, values and strategy	Refer to the Dow Corporate Governance Guidelines, page 1, The Role of the Board, which can be downloaded at <a href="https://investors.dow.com/en/corporate-governance/default.aspx">https://investors.dow.com/en/corporate-governance/default.aspx</a> .		
102-27	Collective knowledge of the highest governance body	Biographies of Directors can be found at <a href="https://investors.dow.com/en/corporate-governance/board-of-directors/default.aspx">https://investors.dow.com/en/corporate-governance/board-of-directors/default.aspx</a> . Refer to the Corporate Governance Guidelines, page 5, Director Orientation and Continuing Education which can be downloaded at <a href="https://investors.dow.com/en/corporate-governance/default.aspx">https://investors.dow.com/en/corporate-governance/default.aspx</a> .		
102-28	Evaluating the highest governance body's performance	Refer to the Corporate Governance Guidelines, page 4, Board Self-Evaluation which can be downloaded at <a href="https://investors.dow.com/en/corporate-governance/default.aspx">https://investors.dow.com/en/corporate-governance/default.aspx</a> .		
102-29	Identifying and managing economic, environmental and social impacts	79		
102-30	Effectiveness of risk-management processes	79		
102-31	Review of economic, environmental and social topics	77		
102-32	Highest governance body's role in sustainability reporting	3		
102-33	Communicating critical concerns	77		
102-34	Nature and total number of critical concerns	77	Information unavailable. While we are able to describe our mechanism to address and resolve concerns, we do not track a number of critical concerns.	
102-35	Remuneration policies	Refer to 2020 Dow Proxy Statement which can be downloaded here: <a href="https://investors.dow.com/en/financial-reporting/default.aspx#sec-filings">https://investors.dow.com/en/financial-reporting/default.aspx#sec-filings</a> , the section titled "Compensation Discussion & Analysis" on pages 21-42.		
102-36	Process for determining remuneration	Refer to 2020 Dow Proxy Statement which can be downloaded here: <a href="https://investors.dow.com/en/financial-reporting/default.aspx#sec-filings">https://investors.dow.com/en/financial-reporting/default.aspx#sec-filings</a> , the section titled "Compensation Discussion & Analysis" on pages 21-42.		
102-37	Stakeholders' involvement in remuneration	Refer to 2020 Dow Proxy Statement which can be downloaded here: <a href="https://investors.dow.com/en/financial-reporting/default.aspx#sec-filings">https://investors.dow.com/en/financial-reporting/default.aspx#sec-filings</a> , the section titled "Compensation Discussion & Analysis" on pages 21-42.		



## ADDITIONAL INFORMATION

# GRI Content Index



GRI Standard/Disclosure		Page Number(s)/Location	Omission	Corresponding SASB Disclosure
102-38	Annual total compensation ratio	47	Confidentiality constraints. In the interest of confidentiality and competitiveness, Dow does not report ratios based on individual compensation at the country level.	
102-39	Percentage increase in annual total compensation ratio		Data unavailable. Since this is the first year of reporting compensation ratios as Dow following the separation from DowDuPont, we are unable to report change.	
5. Stakeholder Engagement				
102-40	List of stakeholder groups	85		
102-41	Collective bargaining agreements	46		
102-42	Identifying and selecting stakeholders	85		
102-43	Approach to stakeholder engagement	85		
102-44	Key topics and concerns raised	84		
6. Reporting Practice				
102-45	Entities included in the consolidated financial statements	The complete list of entities included in Dow's consolidated financial statements can be found as Exhibit 21 to the <u>2019 10-K</u> , starting on page 262. None of these are not covered by this report.		
102-46	Defining report content and topic boundaries	84		
102-47	List of material topics	84		
102-48	Restatements of information	78		
102-49	Changes in reporting	83		
102-50	Reporting period	3		
102-51	Date of most recent report	3		
102-52	Reporting cycle	3		
102-53	Contact point for questions regarding the report	3		
102-54	Claims of reporting in accordance with the GRI Standards	3		
102-55	GRI Content Index	91-100		
102-56	External assurance	89 - 90		



ADDITIONAL  
INFORMATION

GRI Content  
Index



GRI Standard/Disclosure		Page Number(s)/Location	Omission	Corresponding SASB Disclosure
Economic Performance				
201-103	Management Approach	10		
201-1	Direct economic value generated and distributed	11		
201-2	Financial implications and other risks and opportunities due to climate change	82		RT-CH-110a.2
201-3	Defined benefit plan obligations and other retirement plans	78		
201-4	Financial assistance received from government	87	Confidentiality constraints. We disclosed grants information. However, tax related information for this disclosure is confidential in many instances as we have agreements with governments that include non-disclosure provisions.	
Materials				
301-103	Management Approach	28		
301-1	Materials used by weight or volume	28	Not disclosed as aggregate quantity is impractical due to multiple purchasing arrangements and delivery mechanisms.	
301-2	Recycled input materials used	28	Information unavailable: Our businesses report estimates of recycled raw materials used and fraction of their portfolio of products that are ultimately recycled as part of our Sustainable Chemistry Index Survey process. In 2019, businesses reported small percentages for both questions. These results are not aggregated at the corporate level or reported publicly.	
301-3	Reclaimed products and their packaging materials	28	Information unavailable: Our businesses report estimates of recycled raw materials used and fraction of their portfolio of products that are ultimately recycled as part of our Sustainable Chemistry Index Survey process. In 2019, businesses reported small percentages for both questions. These results are not aggregated at the corporate level or reported publicly.	



## ADDITIONAL INFORMATION

# GRI Content Index



GRI Standard/Disclosure		Page Number(s)/Location	Omission	Corresponding SASB Disclosure
Energy				
302-103	Management Approach	30		
302-1	Energy consumption within the organization	30		RT-CH-13a.1
302-2	Energy consumption outside of the organization	30		
302-3	Energy intensity	30		
302-4	Reduction of energy consumption	33		
302-5	Reductions in energy requirements of products and services		Not applicable. Virtually all Dow products do not require energy in use.	
Water and Effluents				
303-103	Management Approach	35		RT-CH-140a.3
303-1	Interactions with water as a shared resource	36		
303-2	Management of water discharge-related impacts	38		
303-3	Water withdrawal	37		RT-CH-140a.1
303-4	Water discharge		Disclosed to GRI 306-1 (2016) as we transition to the new 3030 water disclosure, which is required for reports published on or after Jan. 1, 2021.	
303-5	Water consumption		Disclosed to GRI 306-1 (2016) as we transition to the new 3030 water disclosure, which is required for reports published on or after Jan. 1, 2021.	
Biodiversity				
304-103	Management Approach		Information unavailable. This topic was identified as material for reporting for the first time in 2019. We will develop our capability to disclose through 2020 and expect to report in the 2020 Sustainability Report.	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		Information unavailable. This topic was identified as material for reporting for the first time in 2019. We will develop our capability to disclose through 2020 and expect to report in the 2020 Sustainability Report.	



## ADDITIONAL INFORMATION

# GRI Content Index



GRI Standard/Disclosure		Page Number(s)/Location	Omission	Corresponding SASB Disclosure
304-2	Significant impacts of activities, products and services on biodiversity		Information unavailable. This topic was identified as material for reporting for the first time in 2019. We will develop our capability to disclose through 2020 and expect to report in the 2020 Sustainability Report.	
304-3	Habitats protected or restored		Information unavailable. This topic was identified as material for reporting for the first time in 2019. We will develop our capability to disclose through 2020 and expect to report in the 2020 Sustainability Report.	
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations.		Information unavailable. This topic was identified as material for reporting for the first time in 2019. We will develop our capability to disclose through 2020 and expect to report in the 2020 Sustainability Report.	
Emissions				
305-103	Management Approach	26		
305-1	Direct (Scope 1) GHG emissions	32		RT-CH-110a.1
305-2	Energy indirect (Scope 2) GHG emissions	32		
305-3	Other indirect (Scope 3) GHG emissions	33		
305-4	GHG emissions intensity	32		
305-5	Reduction of GHG emissions	33		
305-6	Emissions of ozone-depleting substances (ODS)	34		
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions	34		RT-CH-120a.1
Effluents and Waste				
306-103	Management Approach	38, 39		150a.1
306-1	Water discharge by quality and destination	38		
306-2	Waste by type and disposal method	39		
306-3	Significant spills	40		541a.1



## ADDITIONAL INFORMATION

# GRI Content Index



GRI Standard/Disclosure		Page Number(s)/Location	Omission	Corresponding SASB Disclosure
306-4	Transport of hazardous waste		Information unavailable. We will be reviewing ways to address this disclosure on a yearly basis as we define the need to capture this information. See page 68 for discussion of our Transportation Safety Index.	
306-5	Water bodies affected by water discharges and/or runoff	36		
Environmental Compliance				
307-103	Management Approach	26		
307-1	Non-compliance with environmental laws and regulations	Report by reference to the <u>2019 Dow 10-K</u> , pages 21-22, Item 3, Legal Proceedings.		RT-CH-140a.2
Supplier Environmental Assessment				
308-103	Management Approach		Information unavailable. This topic was identified as material for reporting for the first time in 2019. We will develop our capability to disclose through 2020 and expect to report in the 2020 Sustainability Report.	
308-1	New suppliers that were screened using environmental criteria		Information unavailable. This topic was identified as material for reporting for the first time in 2019. We will develop our capability to disclose through 2020 and expect to report in the 2020 Sustainability Report.	
308-2	Negative environmental impacts in the supply chain and actions taken		Information unavailable. This topic was identified as material for reporting for the first time in 2019. We will develop our capability to disclose through 2020 and expect to report in the 2020 Sustainability Report.	
Employment				
401-103	Management Approach	41		
401-1	New employee hires and employee turnover	44, 51		
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	46		



## ADDITIONAL INFORMATION

# GRI Content Index



GRI Standard/Disclosure		Page Number(s)/Location	Omission	Corresponding SASB Disclosure
401-3	Parental leave	46	Due to the transfer to Workday, our Human Capital Management system, in 2019, the reporting was not available for retention after 12 months following parental leave.	
Labor/Management Relations – Occupational Health and Safety				
403-103	Management Approach	52		
403-1	Occupational health and safety management system	52		
403-2	Hazard identification, risk assessment and incident investigation	53		
403-3	Occupational health services	55		
403-4	Worker participation, consultation and communication on occupational health and safety	56		
403-5	Worker training on occupational health and safety	56		
403-6	Promotion of worker health	57		
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Reference the narrative on Safer Materials on page 82 for prevention of occupational health and safety impact of our products. Refer to page 68 for the discussion of transportation stewardship for prevention of safety impact of our transportation operations.		320a.2
403-8	Workers covered by an occupational health and safety management system	54		
403-9	Work-related injuries	59		320a.1
403-10	Work-related ill health	59		
Training and Education				
404-103	Management Approach	48		
404-1	Average hours of training per year per employee	48	Information unavailable. We are unable to produce breakdown of training hours by gender or employee category. We will be reviewing ways to address this disclosure on a yearly basis as we define the need to capture this information.	
404-2	Programs for upgrading employee skills and transition assistance programs	49, 51		
404-3	Percentage of employees receiving regular performance and career development reviews	50		



## ADDITIONAL INFORMATION

# GRI Content Index



GRI Standard/Disclosure		Page Number(s)/Location	Omission	Corresponding SASB Disclosure
<b>Diversity and Equal Opportunity</b>				
405-103	Management Approach	43		
405-1	Diversity of governance bodies and employees	43		
405-2	Ratio of basic salary and remuneration of women to men	47		
<b>Local Communities</b>				
413-103	Management Approach	85		
413-1	Operations with local community engagement, impact assessments and development programs	86		210a.1
413-2	Operations with significant actual and potential negative impacts on local communities	86		
<b>Supplier Social Assessment</b>				
414-103	Management Approach		Information unavailable. This topic was identified as material for reporting for the first time in 2019. We will develop our capability to disclose through 2020 and expect to report in the 2020 Sustainability Report.	
414-1	New suppliers that were screened using social criteria		Information unavailable. This topic was identified as material for reporting for the first time in 2019. We will develop our capability to disclose through 2020 and expect to report in the 2020 Sustainability Report.	
414-2	Negative social impacts in the supply chain and actions taken		Information unavailable. This topic was identified as material for reporting for the first time in 2019. We will develop our capability to disclose through 2020 and expect to report in the 2020 Sustainability Report.	
<b>Customer Health and Safety</b>				
416-103	Management Approach			
416-1	Assessment of the health and safety impacts of product and service categories	83, 84		
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services			



