



## CUSTOMER SPOTLIGHT

At Dow, the power of data-science is confronting sustainability



# Summary

Dow uses Posit to empower 'citizen data scientists' across R&D to tackle one of the world's most pressing challenges: reaching net-zero carbon emissions by 2050. More than 300 researchers now have access to Posit Workbench, with many more benefiting from apps deployed on Posit Connect. Through Posit Academy, Dow upskills researchers using projects tailored to their own work — enabling anyone with an idea to go from concept to tested prototype in minutes.

## ABOUT:

Dow is one of the world's largest materials science companies, dedicated to repeatedly innovating and delivering practical, sustainable solutions to meet immense global challenges.

## INDUSTRY:

Manufacturing

## TECHNOLOGY USED:

Posit Connect, Shiny, Posit Workbench, Posit Team, Posit Academy





“ Having innovative projects, pushing the boundaries of material science is part of what we do every day within R&D. And that 5% really motivates me to think about what we could do to push that even further to zero. ”

**JAMES WADE**

Research Scientist  
@ Dow

# The Challenge:

## The Technical Hurdles of a Net-Zero Future



“Before we were regularly using the Posit suite of tools, a lot of the data science work we were doing was scattered,” Wade says.

“We have a very capable and innovative bunch of researchers that are able to get a lot done with just about any set of tooling that you throw at them. However, the Posit tools have enabled an extremely low barrier to entry. That’s allowed people who have an idea to go test that idea in a matter of minutes and to be able to share that with some of their colleagues with relative ease.”

- **BREAKING DOWN SILOS TO ACCELERATE RESEARCH:**  
Trapped in static spreadsheets and specialized silos, Dow’s research data remained fragmented, creating friction that slowed the pace of discovery and delayed critical decision-making.



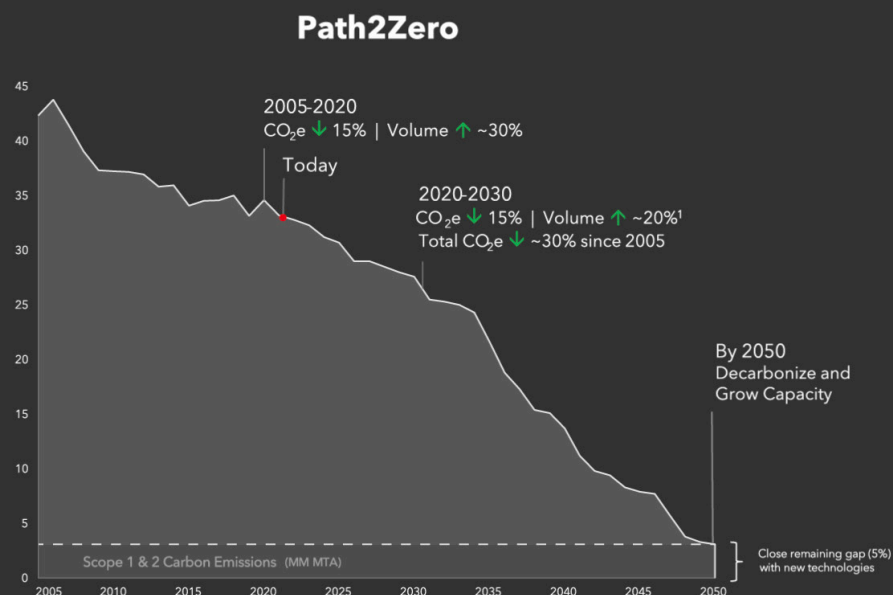
- **THE COMPLEXITY OF THE FINAL 5%:**  
To reach net-zero carbon emissions, Dow is moving beyond incremental improvements to find the new research methods needed to solve their final 5% technical challenge.
- **LIMITATIONS OF PROPRIETARY TOOLS:**  
Dow required an open-source foundation that could evolve alongside their shifting research needs without the constraints of “black box” proprietary systems.

# The Solution: Closing the 5% Gap with Posit

“Having innovative projects, pushing the boundaries of material science is part of what we do every day within R&D. And that 5% really motivates me to think about what could we do to push that even further to zero.

“It’s something you hear us talking about all the time, because it really is part of our identity, not only as a research organization, but also as a company. “To confront the challenge, Dow has made data science a priority throughout the organization, and it’s using Posit to empower “citizen data scientists” — to find answers, share ideas, and collaborate on game-changing solutions.

Today, more than 300 Dow researchers utilize Posit, with even more benefiting indirectly through applications deployed on Posit Connect.



## The Transformation by the Numbers

- **15% CO<sub>2</sub> volume reduction from 2005-2020**
- **95% projection of CO<sub>2</sub> mitigation by 2050**
- **300+ Researchers:** Using Posit to accelerate discovery.
- **60% Reduction** in Operational Costs.
- **Reduced Friction:** Deploying insights directly via Posit Connect.



# Results:

## Scaling Innovation at Dow

“Since 2019, we’ve grown from this handful of researchers to over 300 people now having access to Posit Workbench internally and even more using apps that are deployed on Posit Connect. This growth has been in part through our investment in Posit Academy, where we’re teaching people how to code using an example and a project that’s tailored to [their] work.”

- **James Wade**, Research Scientist @Dow

### 10X PERFORMANCE GAINS IN R&D

By using Posit to automate data workflows, Dow researchers have achieved tenfold performance increases, allowing them to move from initial hypothesis to material science breakthrough significantly faster.

### SEAMLESS INSIGHT DELIVERY

Posit Connect allows researchers to share game-changing solutions with decision-makers instantly, ensuring data-driven strategies for carbon neutrality.

### 60% REDUCTION IN OPERATIONAL COSTS

Transitioning from siloed, proprietary software to a centralized open-source ecosystem has reduced the cost of maintaining data infrastructure by 60% while increasing global accessibility for all teams.

### SUSTAINABLE INNOVATION

Data science now serves as a core pillar of Dow’s identity, enabling the company to pursue its 2050 net-zero goal with confidence.

Learn more at [posit.co](https://posit.co) > | [Read the full story](#) >