



# Digital transformation makes Chevron Phillips Chemical operations more intelligent

Capgemini brings data, AI, cloud,  
engineering, and industry experience  
to deliver business value



Chevron Phillips Chemical (CPCChem) makes the petrochemical solutions found in products of all kinds – with purpose, collaboration, and care. The company responsibly manufactures chemicals and polymers the world needs, and its vision is to be the world’s premier chemical company, known as the employer, supplier, neighbor, and investment of choice.

CPCChem is a joint venture equally owned by Chevron Corporation U.S.A. Inc. and Phillips 66 Company.

## Driving digital transformation

CPCChem’s goals to continuously improve its use of digital tools and expand its presence in the cloud have been driving its digital transformation. The result will be an increase in its computing, data, and artificial-intelligence capabilities. Another significant focus is user adoption: the new digital tools had to be designed with user needs at the center.

“There are so many possibilities for digital tools at CPCChem,” says Jason Gislason, Chief Digital Officer at Chevron Phillips Chemical. “There is so much data and computing power available, we could really make dramatic changes and improvements in how reliable our units are, how productive the units are, and how productive our people can be.

“Change is always hard, but one of the key things is designing everything you do with the people that are going to use it,” he says. “If they are part of the design process, they are much more likely to adopt it and use it. So we always try to start with the end user in mind, working alongside them. In my experience, you do not fail when you have the right focus on the user-experience design.”

CPCChem began by evaluating operations across the company to determine where value could be created. The process led to 52 value cases, and it chose a handful to focus on first. Further meetings narrowed the priorities down to three, based on the amount of value per unit of effort as well as organizational and

technical readiness. Projects that could impact the amount of product being made, the quality, or the feedstocks (renewable, biological materials used as fuel) were selected.

“Humans are really good at creative problem-solving, and machines are really good at repetitive tasks, but many times we have humans doing repetitive tasks,” he says. “There is no reason for that, so it becomes a question of how to manage the repetitive task so employees can use the information to make better decisions. That is the piece that adds value. People will get more out of their jobs because they feel like they are contributing more, which results in a better customer experience or the amount of product we make.”

## Collaborating for success

CPCChem chose to work with Capgemini to deliver on the tools for digital transformation, designing and building a modern data and AI platform on Microsoft Azure to allow scaling of operational AI. Capgemini had the experience in data, cloud, and engineering as well as an ecosystem to deliver real-world digital products and tools, not just concepts or proofs-of-concept.

“When you are thinking about how you are going to implement something like electronic permitting or how to use machine learning, it can be hard to think

about how the technology works and how it will impact the business,” Gislason says. “If you can get an example where somebody else is using it, it helps you reflect on what you do and how you can work better in your own situation. Connecting with other Capgemini customers to hear about their projects and get their advice really helped us refine our use cases and really look at where we should focus our work.”

“Capgemini was already working in Agile and user-experience design, so a lot of the things we wanted to do, we knew would be very successful because

Capgemini was bringing experience to our project,” he says. “Our processes were not the same, but the nice thing about Capgemini is they are more than willing to work with us to change processes to work together.”

The transformation primarily focused on manufacturing and supply chain because they could deliver the biggest impact to the company. The process will then be expanded to other areas, including predictive maintenance and e-commerce, as well as asset information management.

### The initial products are

**1** [Supply & Network Optimization – Shipment Central](#)

**2** [Connected Worker – Asset Information Management](#)

**3** [Connected Worker – Electronic Permitting](#)

## Accelerating change

CPChem adopted a development approach based on the pod model. This delivered innovations faster and engaged end-users more effectively. It started with four pods – three centered on product and one on technology – to build the technical foundations.

“When you have a diverse group of people with different skill sets in the same pod with the same goal and it is self-managed, you get people that are collaborating and working together much more effectively than if one individual is leading a group and dictating all of the work being done,” he says. “We also now have eight pods in business units being supported by a centralized team within the digital organization.

“We no longer have to control what they do, we just let them do what they do because they know what their organization needs most and we support them as needed,” he says. “If they are working on an analytics project and the machine learning gets too difficult, we can take one of our senior, experienced data scientists and support them in their needs. Or if they need data that is difficult to extract because of volume or unique characteristics, we can get our data engineering team to support them and serve up the data.”

Moving to the cloud allowed CPChem to become nimbler and more reliable. About 70 percent of its applications have transitioned to the cloud, and reliability has increased dramatically. This also provides more flexibility in the infrastructure because there is no waiting for new servers or hardware. Capacity can easily be added, so the team can work at its own pace rather than be limited by hardware or infrastructure, and having more users online at the same time does not impact performance.

CPChem built on its existing Microsoft Azure platform as the cloud footprint expanded, and it valued the support of Microsoft as new technology capabilities were developed. This complemented Capgemini’s experience with Azure and the relationship provided CPChem new perspectives on how to solve problems.

## Continuous transformation

CPChem took advantage of Capgemini’s intelligent operations investments in machine learning and optimization to find value quickly. For example, the plant-optimization tools increased reliability and insight into the supply chain, so the company can respond quickly in a dynamic environment without customer experience or product quality being impacted.

“Working with Capgemini’s Insights & Data team really gave us some of the best machine-learning people, data scientists, and data engineers we have ever worked with,” Gislason says. “Capgemini has exceptional people, and we can tap into that expertise right away. I think a lot of these product teams launched more quickly than we could have on our own. It allows us to solve problems in different ways.”

The company also tapped into Capgemini’s ecosystem of partners by engaging them early on in the value case and product development, to make sure CPChem was being bold enough and doing the right things at the right time. The teams could avoid going down paths that were not as productive and kept them on the highest-value path all the time.

“CPChem is going to be dramatically changing over the decades to come,” he says. “The entire industry is changing because of new technologies that are available. Machine learning and artificial intelligence allow you to make better decisions, drive more value to your customers, and be safer and more reliable. All of those things are facilitated by Capgemini’s expertise within the organization and their customer network that allows us to think of better ideas and work together to deliver a product.”

The company is seeing a significant difference in its plant operations, as the new digital tools have boosted reliability, safety, and production. Even though the plants may be physically limited on how much material they can produce, intelligent operations maximize the output of each, while maintaining safety.

“We will probably never stop the digital transformation,” he says. “When you look at the adoption of new technology, these tools have been waiting for decades. The problems and needs of the organization have been around forever. The ability to solve those problems is just becoming available now. We will be digitalizing and changing all our systems to predict better. What I expect is the technologies develop so quickly that in three years, we will have developed a better way to solve a problem than before. It is really a change in the way you think about how you solve problems but also just a fundamental change in the way you work across the entire company.

“There is almost an endless supply of things you can do to make your business better.”





"Capgemini can deliver the products. There are companies that help you conceptualize possibilities and others that will build you a proof of concept so you can imagine what could be. But I think where Capgemini really sets itself apart is the delivery of final product. Proofs of concept are nice but it is a waste of money if you don't use it. What I like seeing is the end product that really solves the problem and I think Capgemini does that exceptionally well."



**Jason Gislason**  
Chief Digital Officer  
Chevron Phillips Chemical Company

## About Capgemini

Capgemini is a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. The Group is guided every day by its purpose of unleashing human energy through technology for an inclusive and sustainable future. It is a responsible and diverse organization of 360,000 team members in more than 50 countries. With its strong 55-year heritage and deep industry expertise, Capgemini is trusted by its clients to address the entire breadth of their business needs, from strategy and design to operations, fueled by the fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering, and platforms. The Group reported in 2022 global revenues of €22 billion (about \$23 billion USD at 2022 average rate).

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