



## Chemicals Leader Optimizes Profits and Emissions with Supply Chain Planning Upgrade



**Aspen Unified PIMS™**  
provides SABIC's team with an **enhanced user interface, faster compute speeds** and broader **integration capabilities.**

## CHALLENGE

- Keep up to date with supply chain planning capabilities
- Position company for future growth in supply chain optimization

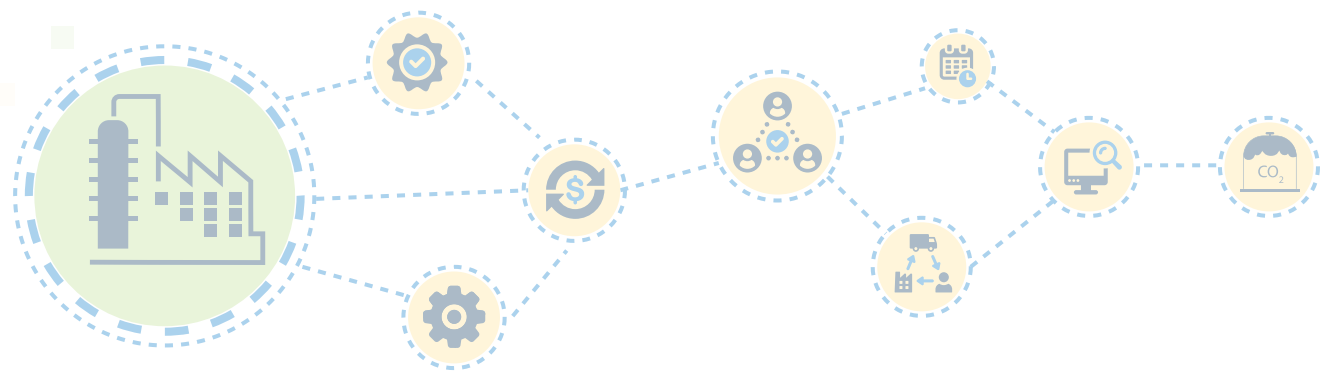
## SOLUTION

Aspen Unified PIMS with Industrial AI

## VALUE CREATED

- Higher margins from integrated scheduling and planning
- Enhanced productivity from
  - Easier visual representation of optimization process and outcomes
  - Collaborative, multi-planner environment
  - Streamlined version control
  - Easy to organize, compare optimization scenarios
  - Role-based access





## Overview

Global chemicals giant SABIC has expansive petrochemical operations that rely on accurate and optimized supply chain planning. The company's European division is responsible for overseeing production planning for petrochemical plants across the UK, Netherlands, Germany and Belgium. Two facilities primarily produce ethylene and propylene via steam crackers, using a range of feedstocks such as naphtha and ethane. In addition to the steam crackers, SABIC also operates eight polymer production plants, which are closely integrated with the upstream petrochemical facilities.

## Upgrade of Supply Chain Planning Capabilities

To further streamline production planning, enhance collaboration and position itself for future growth in supply chain optimization, SABIC decided to migrate from Aspen PIMS-AO™ to Aspen Unified PIMS (AUP). Aspen PIMS-AO had been instrumental in supporting SABIC's business for many years, offering robust functionality for experienced planners. However, as the company's business needs evolved and demand for more accessible, visually intuitive tools grew, AUP could deliver a more user-friendly interface, complete with advanced visualizations and enhanced collaboration features. The migration, carried out over several months, involved the transfer of SABIC's core models from Aspen PIMS-AO to Aspen Unified PIMS and a gradual transition for users.



## The Aspen Unified PIMS Advantage

AUP is among the industry's most trusted production planning optimization solutions, recognized for its ability to monitor and predict CO<sub>2</sub> emissions while balancing overall operational efficiencies. Notable features and benefits of AUP:

**Scheduling Integration.** Aspen Unified PIMS integrates seamlessly with Aspen Unified Scheduling™ (AUS), combining planning and scheduling to further enhance operational efficiency. Importantly, SABIC expects that integrating planning and scheduling will increase margins since the production schedule will be closer to the optimal plan.

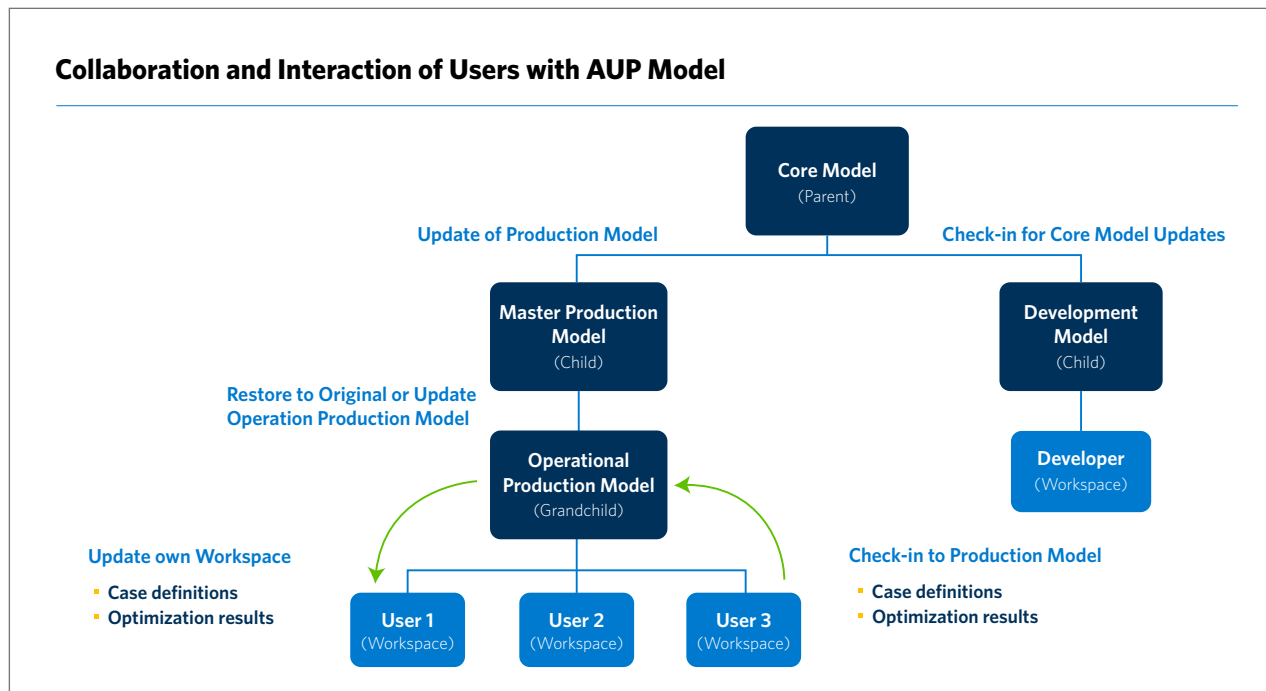
**New Visual Flowsheet.** One of the most significant upgrades in AUP is the introduction of a visual flowsheet interface. AUP enables SABIC users to see the full structure of the model graphically, making it much easier to understand and modify. This visual representation greatly improves communication with non-experts and stakeholders, who can now easily grasp the optimization process and outcomes.

**Case and Model Management.** AUP introduces advanced features for case and model management, streamlining the process of version control and collaboration. SABIC's planners can now better organize different optimization scenarios to easily compare results and take the best action. The platform also enables them to manage cases more effectively, ensuring that updates to core models are propagated seamlessly across the planning team. **See Figure 1.**

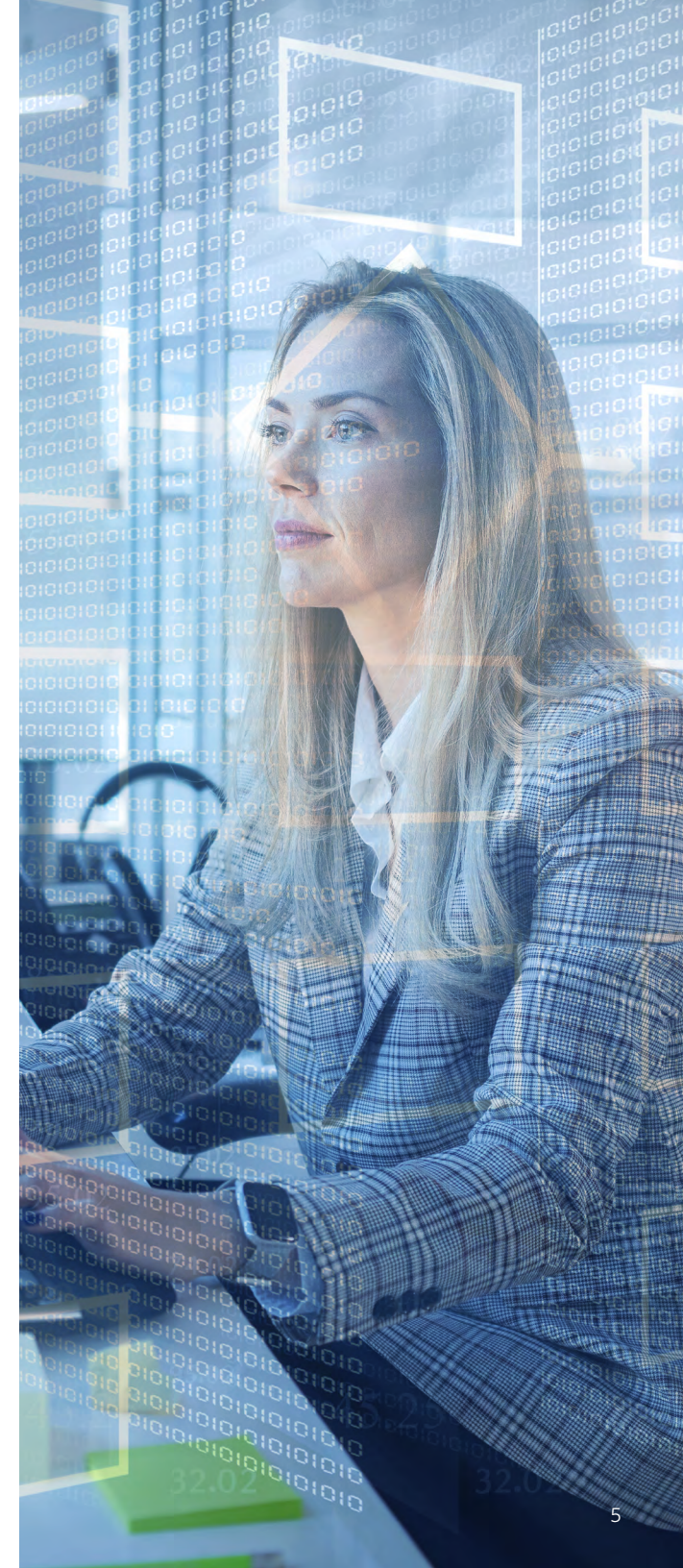


**User Management and Collaboration.** AUP provides improved user management capabilities, including role-based access controls. This ensures that different SABIC users, such as planners, modelers and managers, can access the information they need without undue complexity, while also preventing errors from unnecessary modifications. Furthermore, the collaborative environment enables multiple planners to track changes and work simultaneously on the same models, improving overall productivity. **See Figure 1.**

**Simplified IT Setup.** The migration to a centralized web server dramatically simplifies SABIC's IT infrastructure. Instead of users maintaining their own virtual machine, AUP enables planners to access the platform through a browser-based interface, reducing the maintenance burden on IT staff and improving the speed of updates.



**Figure 1.** AUP users and developers work in their own workspace, ensuring changes only flow up to the Master Production Model, keeping the Core Model safe from errors or accidents. (SABIC)



# Tangible Results Realized by SABIC

**Improved Efficiency.** Aspen Unified PIMS helps planners to work more efficiently, reducing the time required to perform optimization studies. The improved visual interface and case management features enable planners to quickly identify and implement the most profitable production plans.

**Enhanced Collaboration.** The collaborative environment of AUP facilitates better communication and coordination among planners, leading to more accurate and timely decision-making. The solution also enables planners to easily share case results, ensuring that operational plans are consistently aligned across the team.

**Increased Transparency and Stakeholder Engagement.** The visual flowsheet makes it easier for planners to present optimization results to stakeholders. This transparency helps build trust and confidence in the decision-making process, particularly during periods of market volatility.

**Integration of CO<sub>2</sub> Emissions Management.** AUP enables SABIC to integrate CO<sub>2</sub> emissions data into its planning models, an essential requirement given the company's participation in the EU Emissions Trading Scheme (ETS). By incorporating emissions costs into the optimization process, SABIC is able to make more informed decisions about feedstock selection and production planning. **See Figure 2.**

**Scalability for Future Growth.** The successful migration sets the stage for further expansion. SABIC plans to extend the use of AUP to additional production sites and integrate more advanced planning models, including a multisite model for its polymer business.


 Feedstock Economic Value	CO <sub>2</sub> Emissions	
	Low	High
Low	ETS carbon credit surplus increases economic value	Unattractive feedstock
High	Very attractive feedstock	ETS carbon credit deficit decreases economic value

Figure 2. ETS carbon credit costs in AUP model drive feedstock selection and CO<sub>2</sub> emissions.





# Supply Chain Planning Upgrade Process

The migration was carefully structured:

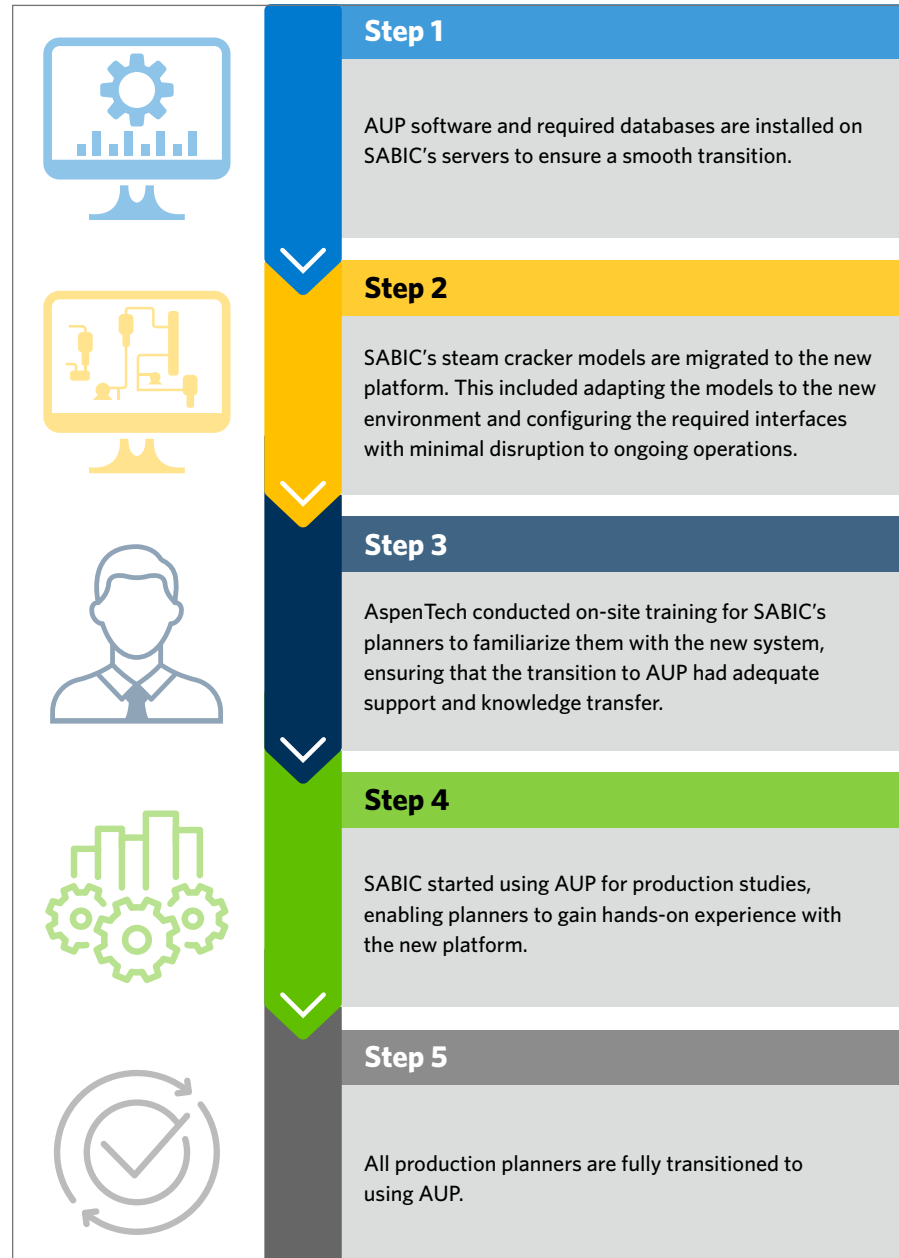


Figure 3. PIMS-AO to AUP migration steps.



## Continuing the Journey to Operational Excellence

SABIC's migration from Aspen PIMS-AO to Aspen Unified PIMS represents a significant step forward in the company's supply chain planning capabilities. By addressing key challenges related to user experience, collaboration, and scalability, the new solution enables SABIC's team to optimize its operations more effectively. With further integration and expansion planned, Aspen Unified PIMS will continue to play a crucial role in SABIC's journey toward operational excellence.

Read more about [Aspen Unified PIMS](#).







## About Aspen Technology

Aspen Technology, Inc. (NASDAQ: AZPN) is a global software leader helping industries at the forefront of the world's dual challenge meet the increasing demand for resources from a rapidly growing population in a profitable and sustainable manner. AspenTech solutions address complex environments where it is critical to optimize the asset design, operation and maintenance life-cycle. Through our unique combination of deep domain expertise and innovation, customers in asset-intensive industries can run their assets safer, greener, longer and faster to improve their operational excellence.

[aspentech.com](https://www.aspentech.com)

©2025 Aspen Technology, Inc. All rights reserved. AT-3434

