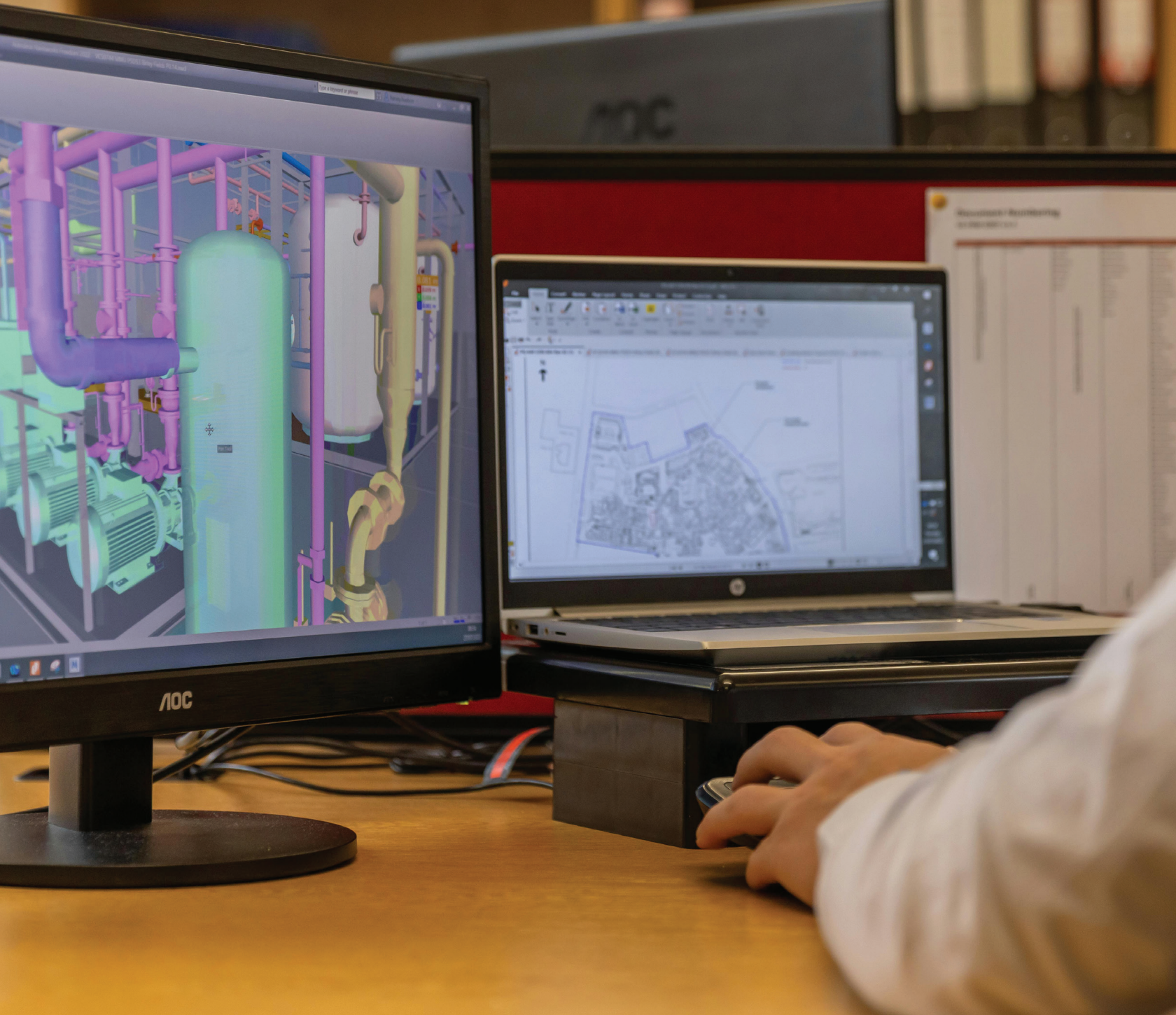


## CREATING WITH CAD

PSTE participants gain digital engineering experience by integrating various tools and processes, including CAD software, enabling engineers to explore how products operate in real-world conditions. (Photo by ThisIsEngineering, Pexels)



A young boy with curly hair is shown in profile, looking intently at a computer screen. The background is slightly blurred, showing what appears to be a classroom or office setting with a whiteboard or chart.

# A DIGITAL D I V I D E

The PPTE digital engineering cohort aims to develop the acquisition workforce through hands-on learning with private sector organizations.

*by Rachel Berry*

**T**he Department of Defense (DOD) Public Private Talent Experience (PPTE) program provides DOD acquisition workforce employees with the opportunity to complete a professional assignment by serving for six months with a private sector organization. PPTE promotes increased communication between government and industry, enables participants to gain a better understanding of industry's business operations and challenges and facilitates the sharing of innovative best practices.

## **DIGITAL ENGINEERING COHORT**

In support of the Army's Digital Transformation Strategy, a number of key stakeholders partnered to leverage PPTE's fiscal year 2024 program. An opportunity to utilize PPTE as a supportive activity that could increase the digital acumen across the acquisition workforce was first identified by David Gorsich, Ph.D., chief scientist, U.S. Army Combat Capabilities Development Command (DEVCOM), along with the Office of the Deputy Assistant Secretary of the Army for Data, Engineering and Software (DASA(DES)) and the Army Director of Acquisition Career Management Office. Leveraging relationships with industry partners within the Army Science Board, the team created an Army PPTE digital engineering cohort with the goal of developing the workforce by learning with hands-on experience. Organizations like Bell Textron, Ford, The MITRE Corporation and Siemens created digital engineering-specific assignments and hosted an Army digital engineering practitioner for a six-month, immersive digital engineering experience.



### OUTSIDE-THE-BOX THINKING

David Gorsich, Ph.D., chief scientist at U.S. Army DEVCOM Ground Vehicle Systems Center (seen here speaking before the Automotive Research Center’s annual review at the University of Michigan in Ann Arbor), was instrumental in identifying and establishing the PPTE program as a supportive activity that could increase the acquisition workforce’s digital acumen. (Photo by Christopher Estrada, DEVCOM GVSC)

Gorsich reflected, “The first cohort from the program had a wonderful experience with companies that do digital engineering well. Our employees who returned come back with industry best practices and lessons learned to inform our work processes.” He further commented that this program “is a tremendous opportunity to work directly with commercial industry and see how to do digital engineering. The opportunity with Ford was to work with them on engineering and development of the F-150 pick-up truck. Who would not want to work on the development of that? And it is of great value to the Army to bring back that experience and look at how we do things in comparison. It provides a great perspective to the employee.”

In fiscal year 2024, four participants in the PPTE digital engineering cohort were placed within Bell Textron, Ford, The MITRE Corporation and Siemens.

### A VALUABLE LEARNING EXPERIENCE

Ivan Couvillon, a PPTE participant assigned to Bell Textron, shared his experience as it relates to his current Army work, where he focuses on new technologies and processes to improve the technical exchange of information from various functional groups, including engineering, procurement, manufacturing, project management and logistics. His PPTE assignment at Bell Textron “directly related to the interoperability of various commercial technologies [primarily

software systems] and some of the challenges related to the exchange of technical information and data sets encountered during the product development cycle.”

Through this experience, Couvillon learned new approaches for investigating and testing software solutions that can minimize the loss in fidelity of technical data as it is exchanged between various software systems used by various user groups.

“My PPTE experience has allowed me insight on how to approach problems associated with using common data sets across unique user groups and functions.” Couvillon was also impressed by industry’s “flexibility to acquire and deploy new

toolsets” and “anticipate challenges and target solutions to these challenges prior to them being encountered by their customers.”

## In fiscal year 2024, four participants in the PPTE digital engineering cohort were placed within Bell Textron, Ford, The MITRE Corporation and Siemens.

Svetislav “Steve” Petrusevic spent his digital engineering PPTE with Siemens and is applying his experience to his program, Project Manager (PM) XM30, which “is at the tip of the spear defining and changing the culture going away from a traditional methodology to a digital methodology.” Petrusevic said that “by participating in the PPTE program, the skillset and knowledge has been brought back to PM XM30.” Throughout his program, he learned how Siemens utilized system thinking, or integrating different digital engineering tools and processes to create complex systems specific to healthcare. He also gained experience with a digital engineering tool called Star-CCM+, which provides the capability of computer-assisted design (CAD) handling and geometry preparation and enables computational fluid dynamic engineers to model the complexity and explore the possibilities of products operating under real-world conditions. “This allows the simulation to stay true to the design based on the CAD, allowing quicker simulation,” Petrusevic said.

To anyone interested in the PPTE digital engineering program, Petrusevic encourages them to “go for it! Place your name in the ‘hat’ and, if selected, participate in the PPTE digital engineering program. There is so much to learn in private industry, specifically [with] digital engineering tools.”

### CONCLUSION

In fiscal year 2025 there are seven PPTE digital engineering participants at The Aerospace Corporation, Amazon, Applied Intuition, Bell Textron, Invariant, MORSE Corp. and Siemens. For the future of the PPTE digital engineering program, Gorsich

commented “We hope more companies join the program and more associates take advantage of it. In the FY25 PPTE program, there is the addition of a Silicon Valley company called Applied Intuition. They develop and assess autonomous systems. Talk about an opportunity for the employees and the Army to learn how things are done in this exciting area, and a key area for the Army’s future.”

*For more information about the PPTE program, go to <https://asc.army.mil/web/career-development/programs/dod-ppte>.*

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