

The background of the top half of the page is a photograph of a person with dark hair and glasses, wearing a yellow sweater, looking at a computer monitor in a dark room with blue ambient lighting. The monitor displays code. The person is seen from the side, looking towards the left.

# Highlighting how *AI enhanced coding* for an automotive giant

When a global automotive brand introduced GitHub Copilot, Capgemini deployed its software engineering measurement protocol to demonstrate how the platform improved coding productivity and quality

As a German automotive company has increasingly embraced software-driven practices, more of its employees have necessarily become software engineers. This change, coupled with the complex tasks involved in building modern vehicles, has made enhancing the developer experience essential. Understanding this, the brand determined that it needed to reduce the

**Client:** Global automotive company

**Region:** Global

**Industry:** Automotive

**Client Challenge:** Following the implementation of GitHub Copilot in support of software engineering, the organization wanted to fully understand the solution's impact on productivity and code quality.

**Solution:** Capgemini mirrored the automotive company's roll out of GitHub Copilot and used its software engineering measurement protocol to track how the platform enhanced coding quality and consistency.

**Benefits:**

- Expanded understanding of software engineering proficiency gains
- Greater ability to make data-driven decisions
- Comprehensive summary of coding improvements

cognitive load of developers and improve the speed at which they received feedback in order to facilitate deep concentration, heightened focus, and optimal performance when coding, otherwise known as a flow state.

Taking all of this into consideration, the organization decided to use Gen AI to transform its software engineering capabilities. However, doing so effectively required a comprehensive understanding of the impact as well as a tool that could properly measure the benefits of innovative automation. Implementing such a tool required extensive knowledge of the Microsoft GitHub Copilot solution, the automotive industry, and the coding process.

For this specific kind of support, the automotive company engaged Capgemini and launched a collaborative effort to provide key business leaders with a tool to track coding metrics.

## A collaborative push to improve coding

By June 2023, GitHub Copilot was made available for internal use by all software engineers after successfully navigating the pilot phase. Capgemini matched this rollout across all projects, ensuring that the same benefits were experienced by all software engineers across every collaborative engagement between the organizations. Throughout this rollout, hands-on training sessions, equipped developers with the skills needed to fully utilize Copilot's capabilities. Continuous feedback loops were established to refine the implementation based on real-world use cases, further enhancing the effectiveness of the new system.

Once the partners had aligned their coding processes, Capgemini then introduced its software engineering (SWE) measurement protocol, which used Azure/Jira and SonarQube to track the impact of Gen AI on overall developer performance and code quality. This provided a robust framework for the continuous quantitative

and qualitative evaluation of the impact Copilot made for Capgemini coders. Drawing upon this information, the automotive company better understood how the new system benefited software engineers, enabling more effective data-driven decision-making thanks to comprehensive evaluation based on context-specific metrics.

This approach tracked code quality metrics, such as coding velocity, and tracked how well the developers maintained a high level of quality for existing assets. Doing so ensured that the results of the project were transparent and could be continuously monitored.

## Boosting productivity and code quality with Gen AI

With coding teams using a standardized system across both organizations and a new SWE measurement protocol, the automotive giant could more effectively communicate how the Gen AI solution led to productivity gains. In this way, Capgemini demonstrated how implementing GitHub Copilot led to improvements in code analysis, formatting, and optimization at the automotive brand and Capgemini. In addition, the SWE measurement protocol also indicated that the Gen AI platform enhanced code quality and consistency, which benefited coding activity and helped employees spend more time on creative and complex tasks.

The success of this initiative underscores the potential for future collaborations and advancements. The company and Capgemini now plan to continue jointly exploring innovative uses of Gen AI in software engineering.

By effectively demonstrating the way that Gen AI has benefited its coding activity, the automotive brand reached new heights for efficiency and innovation. The partnership with Capgemini and Microsoft is transforming software engineering processes and paving the way for future technological advancements and competitive advantages.



# About Capgemini

Capgemini is an AI-powered global business and technology transformation partner, delivering tangible business value. We imagine the future of organizations and make it real with AI, technology and people. With our strong heritage of nearly 60 years, we are a responsible and diverse group of over 420,000 team members in more than 50 countries. We deliver end-to-end services and solutions with our deep industry expertise and strong partner ecosystem, leveraging our capabilities across strategy, technology, design, engineering and business operations. The Group reported 2025 global revenues of €22.5 billion.

**Make it real | [www.capgemini.com](http://www.capgemini.com)**

