

# AUTOMOTIVE SECURITY BY DESIGN



## 👁 Overview

This whitepaper describes the integration of CYMOTIVE's Security Engineering services to the vehicle development lifecycle as a holistic approach and an end-to-end solution for ensuring automotive security by design.

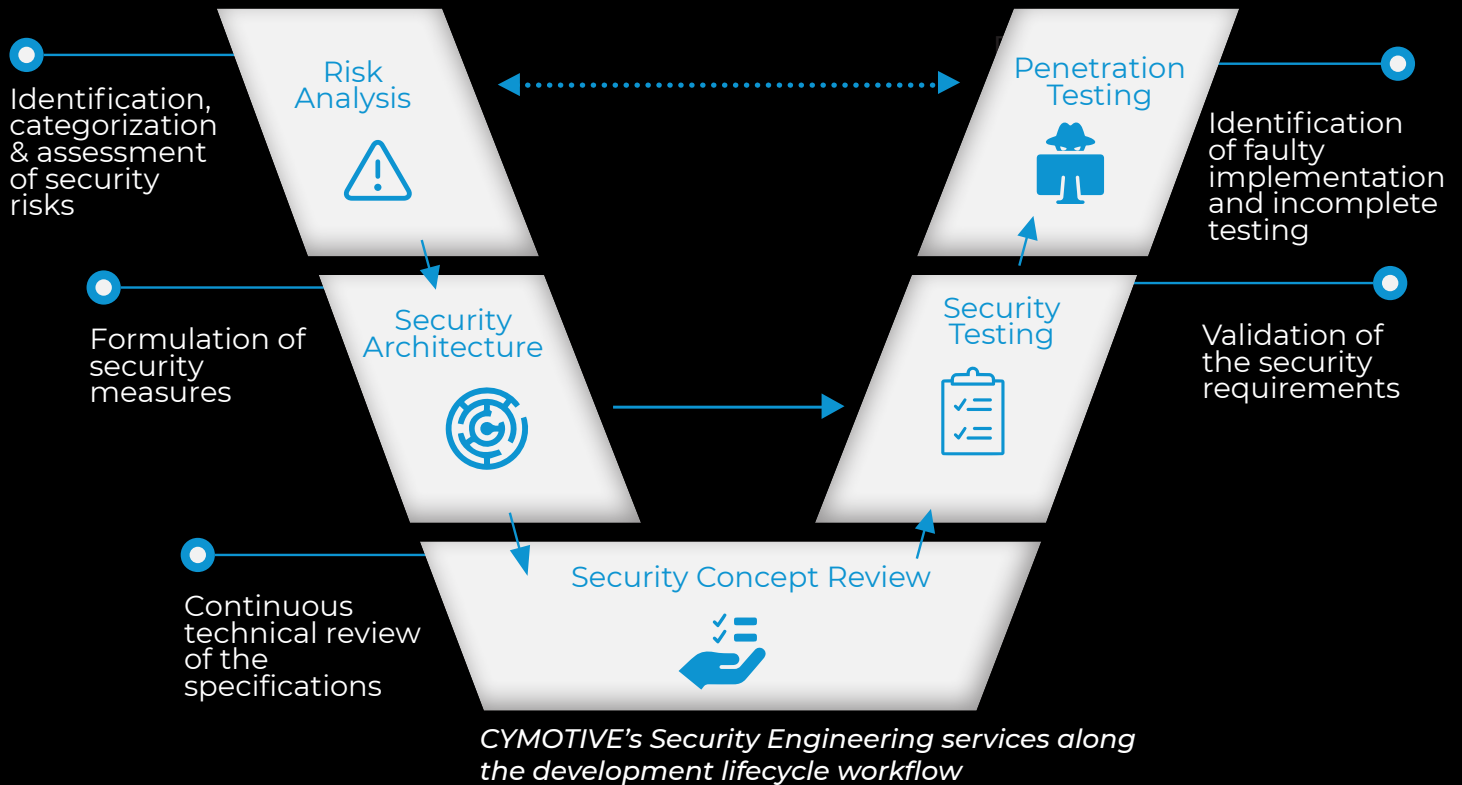
## 📈 Challenges

The modern automotive platform is a complex network of high-performance processing capabilities, advanced sensors for assisted driving, and communication interfaces such as Ethernet, 5G, Wi-Fi and V2X. These highly connected vehicles, powered by an ever-expanding software stack and an always connected automotive cloud, introduce a larger attack surface and additional security risks to the automotive solution. The combination of the emerging threat landscape, cybersecurity incidents, and introduction of automotive cybersecurity regulations

worldwide must be addressed by an end-to-end secure-by-design automotive platform strategy. The future automotive platform will need to address known attack surfaces and vulnerabilities, while staying resilient against new threats through an evolving dynamic security architecture, over-the-air update capabilities, and an advanced Intrusion prevention mechanism. As the regulatory landscape evolves – Security Engineering Services become mandatory for any modern OEM.

## 💡 The Solution

CYMOTIVE works closely with OEMs, Tier1s, and third-party software developers to ensure high quality product security. Our services cover the entire vehicle development process: from the design phase to production across in-vehicle, the automotive cloud, on-demand content services, and the rest of the automotive ecosystem.



We are committed to making sure the security measures meet your business needs and regulations – both in terms of Hardware Security and Software Security. Our process contains industry standard services, enhanced by the cross-domain experience of experts from offensive and defensive cybersecurity disciplines, combining “defender best practices” with the “attacker’s intuition”. This collaboration, together with an end-to-end approach between vehicle platform and Cloud,

allows us to close the gaps between different security processes, create a knowledge feedback loop, and find and address security issues that would not be discovered by other teams. CYMOTIVE, a market leader in automotive security, is considered a trusted security partner of multiple well-known OEMs. Our partnerships provide us with an un-paralleled experience and cutting-edge knowledge in securing vehicle components, platforms, and connected ecosystems.