### (expleo)

# Secure by design

Manage the cyber threat systematically across your defence project lifecycle to ensure the delivery of a capability that meets its mission requirements in a secure manner without compromising safety and regulatory stakeholders' needs.



Deliver complex defence engineering programmes safely, securely and at speed by adopting a whole lifecycle approach to cybersecurity. This five-point agility guide looks at how embedding cybersecurity throughout demanding defence projects accelerate outcomes while mitigating risk and future-proofing systems.

### #1 Embed cybersecurity at the project outset to optimise efficiency

Defence projects are increasingly exploiting the capabilities emerging through greater connectivity, whilst potentially increasing their attack surface. Expleo embeds cybersecurity at the outset of a project, which is key to building a more resilient infrastructure and to unlocking cost savings. By exploring the risks and understanding the issues fully at the concept stage, vulnerabilities are identified and fixed early to streamline workflows and speed up project deliverables.

### #2 Translate risk into actionable and meaningful steps

Risk can and should be identified and managed at each stage of the project, from design and development through to testing and implementation. These risks – such as unauthorised access or stealing product source code - must then be mitigated against in terms that everyone understands through specific action. It's about building processes collaboratively that identify, model and fix threats at each stage to improve project timescales and outcomes, as well as creating the most safe, secure and resilient environment. Adding to that, any risk management process must take into account current and future requirements for interoperability with other systems.

## #3 Combine engineering know-how with security expertise to enhance system protection

Understanding defence engineering processes and context is a key factor in implementing high-performing cybersecurity solutions effectively. Unlike many others who support defence programmes, Expleo has capability to deliver from concept to a built final solution giving an insight that many others cannot provide. Partners who offer both core engineering and dedicated cybersecurity expertise can more readily integrate protection measures into existing technical processes. Experienced defence cybersecurity engineers bring valuable knowledge on critical infrastructure, supply chains and security systems on top of compliance requirements. Cross-industry lessons from industrial, aircraft, railway, automotive and maritime add further value.

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### **#4** Whole lifecycle cybersecurity supports system assurance

Cybersecurity regulations and standards are evolving rapidly as innovative technologies and new threats emerge. Defence programme scopes are more complex, and meeting regulatory standards requires the latest high level support. A secure by design approach locks in cybersecurity at every step of the lifecycle - scope, design, development, testing, deployment - to support whole system accreditation. Security-cleared experts embed cybersecurity effectively throughout the project to strengthen assurance, from comprehensive threat modelling at the design stage to source code auditing / penetration testing during testing phases before the deployment.

### **#5 Manage vulnerabilities to future-proof systems**

Whole lifecycle cybersecurity must include monitoring and maintenance post deployment. Vulnerability and obsolescence management, as well as security monitoring and incident response, are key processes that maintain safe and secure operational effectiveness as connectivity develops and counter measures against new types of cyber threats are required. Ongoing collaboration with specialist and security-cleared resources helps future-proof systems safely and optimise operational lifecycles.



#### **About Expleo**

Expleo is a global engineering, technology and consulting service provider that partners with leading defence organisations. Through cross-industry fertilisation and advanced digitalisation, our security-vetted people help you reshape your R&D, engineering and production approach to deliver complex defence projects faster and more efficiently.





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