

SOFTWARE ENGINEERING AND QUALITY ASSURANCE

This competency delivers comprehensive software auditing and quality assurance to ensure robustness, security, and standards compliance. It applies static and dynamic testing, source-code analysis, and documentation review to identify vulnerabilities and quality gaps. The service supports partners in meeting regulatory and security expectations (e.g. GDPR, OWASP, ISO/NIST) while promoting secure, maintainable development practices.



ACHIEVEMENTS

- Peer-reviewed publications in IEEE and ACM venues on software reliability and quality metrics.
- Development of automated testing frameworks and QA methodologies for embedded, industrial, and AI-based systems.
- Reliability audits for safety-critical and real-time software, including medical and automotive domains.
- Application of model-based design and verification in multi-domain RDI projects.



INFRASTRUCTURE

- Static code-analysis and dynamic application-testing environments.
- Secure coding reference frameworks (OWASP, ISO 25010, NIST).
- AI-assisted code review and documentation systems.



REFERENCES

- Software reliability validation collaboration with Bosch Engineering Center Hungary.
- Software quality auditing and testing frameworks with Continental Automotive Hungary.
- Academic-industrial QA automation and testing collaboration with Ericsson Hungary.