Overview

2017

Establishment

Kineton emerged from a unique partnership of academia and industry, leveraging diverse expertise.

2019

Kineton Immobiliare

Employee-owned company, owning offices in Milan, Naples, and Turin.

2022

Società Benefit

This status reflects our continuous commitment to creating a positive impact for community.

2024

EcoVadis

This recognition showcases our commitment to sustainability and corporate responsibility.

2025

Today

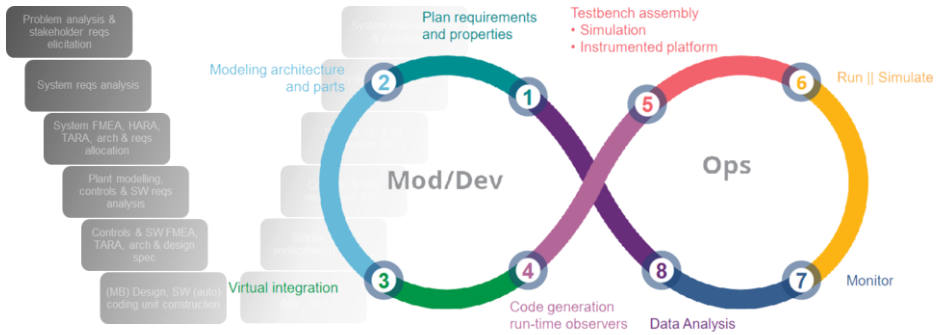
Operating with a total of 8 branches across Italy, UK, Albania, Germany, and USA.

Why Kineton?

- **Expertise** (20+ OEM's / TIER1's prjs) & **innovation** (no corporate constraints)
- **Reactiveness:** change response & task forces < 3 days
- **Efficiency:** reusable artifacts, virtualization, right mix of seniority
- **Cost predictability** & **geopolitical stability** and trust

- **10+ vehicle and component plants**
- **Extreme flexibility on timing and location**
- **100+ launches**
- **50+ field engineers and flying doctors**

Innovation & R&D



Manufacturing

Presentation, launch, quality & field support

AUTOMOTIVE SPICE®

ISO 21434 ISO 26262

WCM

Pragmatic approach enabling **sustainable compliance.**

Deep expertise, innovation & flexibility to support all along the product life cycle.

Erasmus+
Enriching lives, opening minds.

Co-funded by the European Union

ASA Certified Automotive Cybersecurity tester

Partnership

Collaboration between companies, universities and certification provisors.

Domain

Automotive cybersecurity requires dedicated testing procedures.

Vision

Maintain a continuously evolving set of skills. Address need for certified Automotive Cybersecurity testers.

kineton High-Tech Humanity
TU Graz
SCOVECO
ISCN International Sustainable Campus Network
GRENOBLE INP UGA
EUROSPI²

Project Background

Automotive Cybersecurity Tester challenges

Increased connectivity

Attack surfaces in continuous evolution.

Attack sophistication

Low foot-print attacks.
AI as an attack medium.

Stringent regulations

Regulations mandates OEM to establish proper testing.

Automotive Landscape

Technology evolution

Autonomous and connected vehicles technologies.

Defense sophistication

AI as a defense medium.
Big Data processing.

Professional reliability

Cyber testers to be officially recognized.

Project Milestones

Main deliverables and advancement status

Done

In Progress

Not Started

May 2027

Skillset definition
Define the base knowledge to promote along the course

Sep 2024 - Mar 2025

- *Skill RoadMap*
- *Skill Definition*

Certification
Establish certification framework for defined skillset

Mar 2025 - Jul 2025

- *Certification framework*
- *Recognition framework*

Training Modules
Develop training modules and exercises

Jun 2025 - Mar 2026

- *Training Material*
- *Practical Exercises*

Online Academy
Develop an online academy with certification exams

Mar 2026 - Jan 2027

- *Academy Setup*
- *Exam portal Setup*

Dissemination
Promote the course among working groups and public events

Mar 2025 - ...

Project core

Knowledge areas and project outcomes

Curriculum Structure

Norms and Vehicle Architecture

- Automotive Standards for Cybersecurity
- Modern Vehicle Architectures
- Typical HAD 3-5 (Highly Autonomous Drive) vehicle assumptions and vulnerabilities

Essentials for Cybersecurity

- Cryptography essentials
- Automotive recommendations and guidelines (NIST)
- Intrusion Detection Systems (IDS) & Firewall

Cybersecurity Architecture

- Communication at ECU & HPC Level
- Defense-in-Depth Architectures at ECU & HPC Level
- Norm for Security Certificate of a vehicle PKI at ECU & HPC Level

V&V Approach

- Verification Strategy
- Test Case Design
- AI driven test case generation

V&V Methodologies

- Verification as SW coding level
- SW/System Integration Verification for Cybersecurity Use Cases
- Linux architecture - - Service Layer specific verification approach
- Verify SW Build of Material (SUMS) - - SW Update Verification
- Verification and Validation Reporting
- Typical Verification Environments (different examples, awareness level)

Learning by doing!!

Training Materials

- Training Modules
- Exercises

Certification

- Exams
- Practical Tests

Free training available at European level

Full certification course upon subscription

Project impacts
Benefits and dissemination strategy

Expected Benefits

- Offer new carrier opportunities with certified skills for future professionals
- Automotive cybersecurity will benefit from qualified personnel
- A new standardized approach for training with a focus on hands-on methodology

Dissemination

- Publication of the produced documents on the Erasmus+ Platform
- Publication of **M**assive **O**nline **O**pen **C**ourse at the European level
- Dissemination through conferences, papers and among working groups

Stay tuned

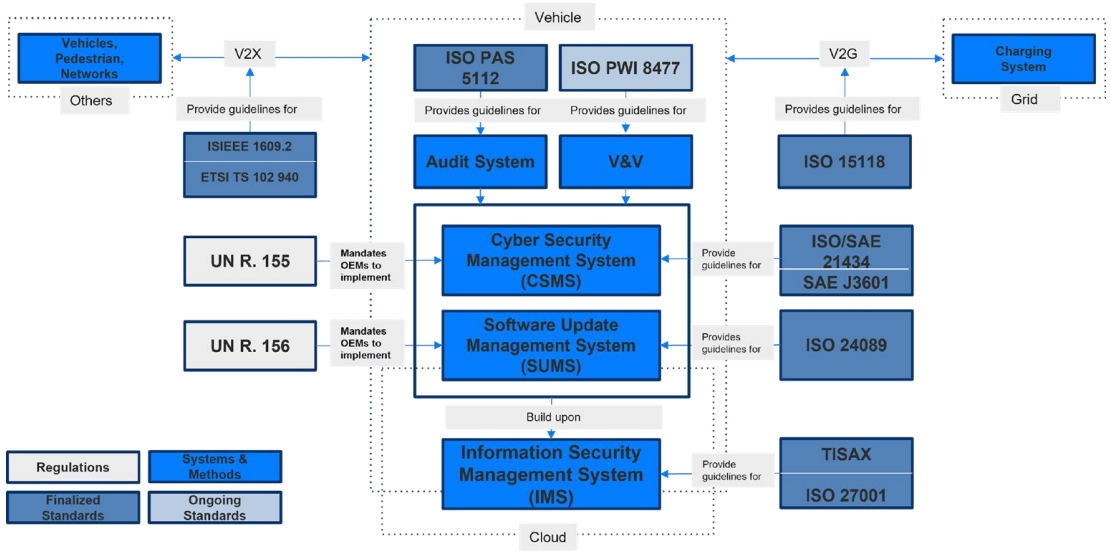
- Project Link, access the project results and monitor for progress. Interact with us if any proposal
- How to be involved, keep in touch to get pilot phase trials and initial free access for testing and refining
- Contacts

Automotive security shift

Stringent norms and increased attack surface

Automotive Cybersecurity EU Standards & Norms

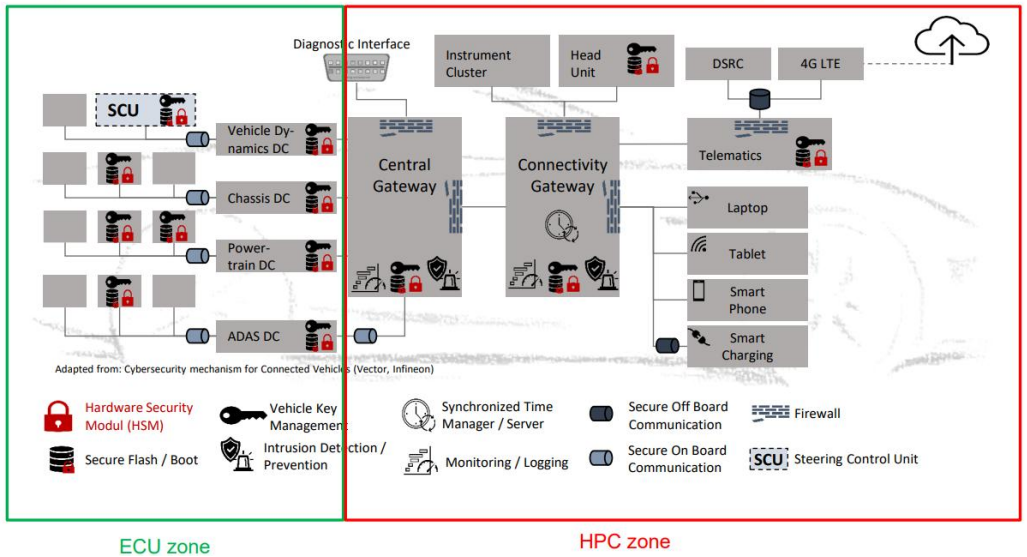
- Regulations mandates OEM to maintain security management systems
- Cyber testers should perform tests to prove OEM compliance and help assessing OEM cyber position



Modern vehicle architectures

- Shift in vehicle architectures, increase in HPCs deploy
- Cyber V&V methods well established for ECU zone, project focus will be on HPC zone
- HAD 3-5 assumption implies additional cyber risks

High Performance Computer (HPC) security versus ECU security



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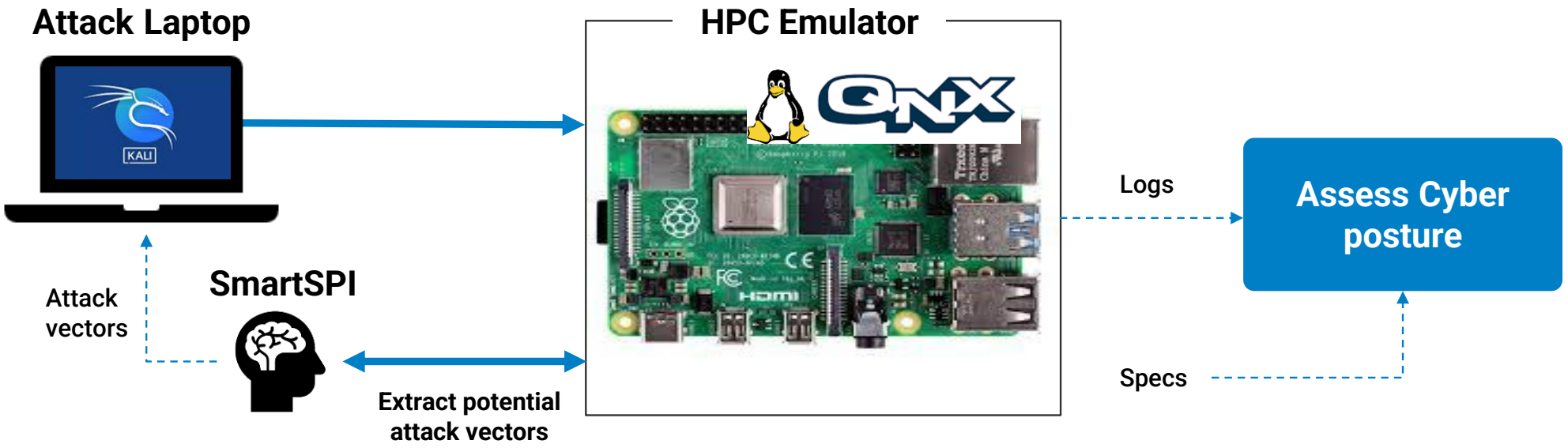
HPC Testing scenario
Exercise set up and tools

HPC Emulation : Install a Linux QNX server on a RasBeberry PI
Attack emulation : Attacker programs in Kali Linux
AI driven reconnaissance : Use of SmartSPI AI interface to extract attack vectors.



AI as a defense medium

Use of AI to assist cyber testing

Assisted AI Agent for Automotive Cybersecurity Testing

- Test code generation & test execution
- Test results analysis
- Human in the loop