

BUGATTI

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Cooock Project

- › 3 years (since April 1st)
- › user group meetings (3/year)
- › hands-on seminars/workshops

- › Goal: Integration in ‘your’ organization

General Goal

Increasing the security level of
embedded devices and IoT ecosystems
through
secure automation techniques
and security testing.

Partners and User group



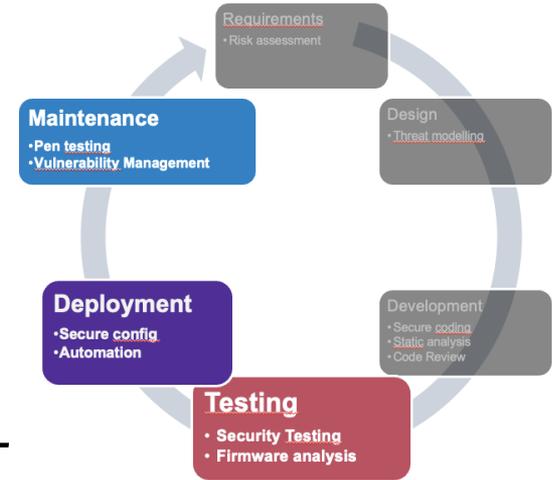
Specific goals:

Security testing of IoT applications

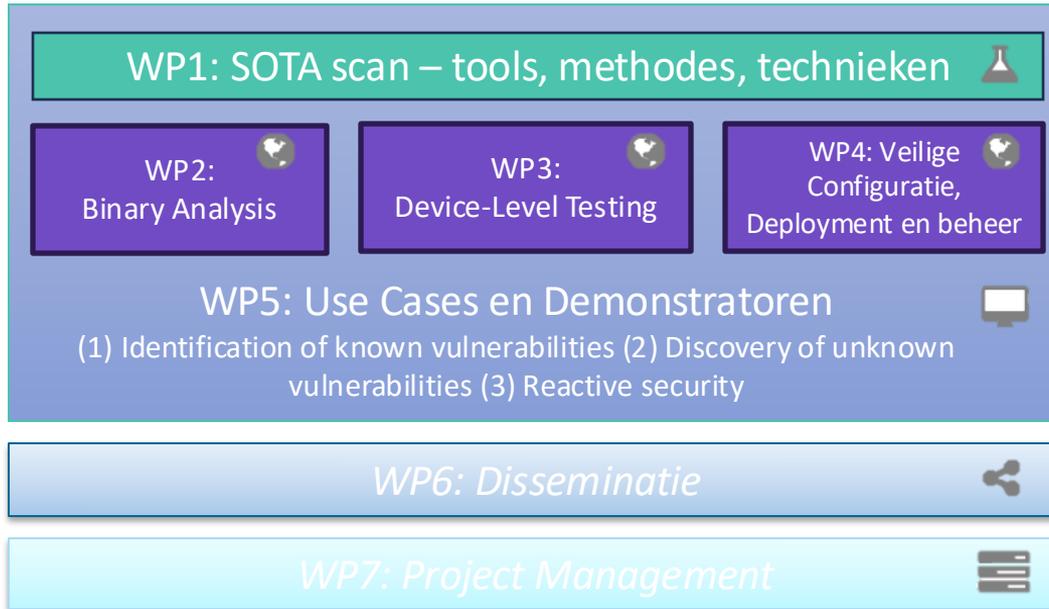
- › *Tools for static analysis of device firmware*
- › *Advanced dynamic/pen-testing techniques*

Secure configuration, deployment and management of IoT

- › *Infrastructure as code*
- › *Attack detection, security-orchestration and incident response*



Approach



WP2: Binary Analysis



Test Environment



Tools and techniques for the detection of unknown vulnerabilities in embedded systems



Differential testing



Integration in CI/CD pipeline

WP3: Device Level Testing



Emulation and Virtualisation



Tools and techniques



Compliance with regulation and standards



Monitoring in IoT devices

WP4: Secure configuration, deployment and Management



Infrastructure-as-Code for IoT ecosystems



SIEM and SOAR for IoT ecosystems



Secure Update mechanisms for Embedded Devices

What can you expect

- › *For IoT domain tools from research.*
- › *Hands-on workshops:*
 - ›› *Analysis and testing of Linux based devices.*
 - ›› *Analysis and testing of Bare metal devices.*
 - ›› *Secure Infrastructure as Code*
 - ›› *Reactive security*
- › *best practices and guidelines.*

Agenda

- › Introduction
- › Project Goals & Approach
- › **DistriNet@Ghent, KU Leuven**
- › **Soft Languages Lab, VUB + Demo**
- › Discussion, AOB