

# SAFURE - SAFety and secURity by design for interconnected mixed-critical cyber-physical systems

# SAFURE

## MISSION OF SAFURE

SAFURE's mission is to design a cyber-physical system by implementing a methodology that ensures safety and security by construction. This methodology is enabled by a framework developed to extend system capabilities so as to control the concurrent effect of security threats on the system behaviour. With this in mind, the project aims at allowing European suppliers of safety-critical embedded products to develop more cost and energy-aware solutions.

## MOTIVATION

The current approach for security on safety-critical embedded systems is generally to keep subsystems separated, but this approach is now being challenged by technological evolution towards openness, increased communication and use of multicore architectures. SAFURE will push forward the limits of current approaches on safety and security mixed-critical systems in a way that has never been done before.

## TECHNICAL APPROACH

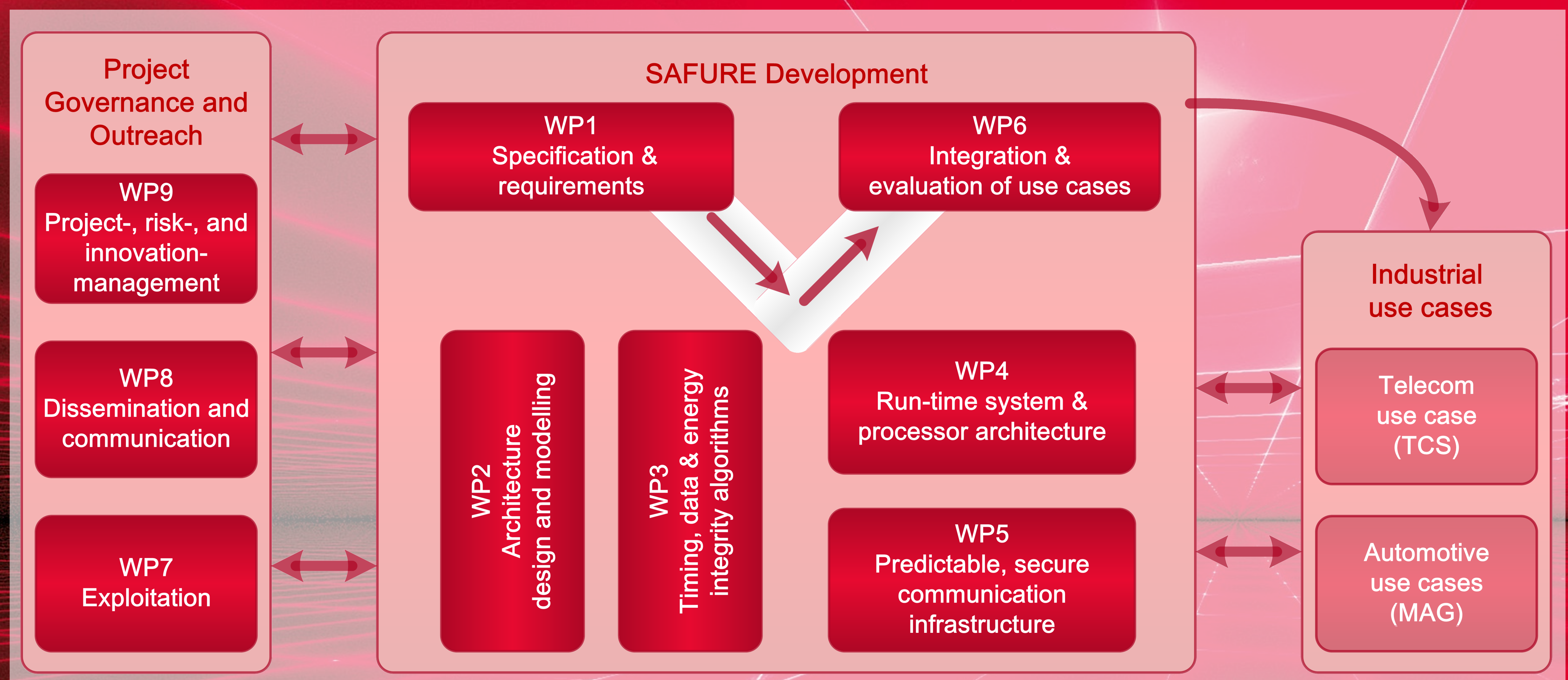
The SAFURE project activities are organized in three industrial use cases that guide the development of the SAFURE Methodology and Framework. They will be processed within 36 months and are structured in the following 9 work packages.

## OBJECTIVES

The SAFURE project aims at **addressing the security of safety-critical cyber-physical systems by implementing a holistic approach to safety and security by construction**. For this purpose, extensions of tools and system capabilities are developed to prevent, detect and protect against possible vulnerabilities and attacks. Efficient system configurations and reconfigurations, keep critical subsystems within their safety and security boundaries without inflicting performance impairments for best-effort applications. Thus, the SAFURE Framework will extend system capabilities to preserve system integrity from time starvation, massive energy dissipation and data corruption, seamlessly integrating security requirements into safety systems from a new point of view.

**The specific objectives of SAFURE project are:**

- Holistic approach of safety and security by construction
- Empowering designers and developers
- Opportunity to extend current standards



# SAFURE

Project start: 1<sup>st</sup> February, 2015  
Project duration: 3 years

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[www.safure.eu](http://www.safure.eu)

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