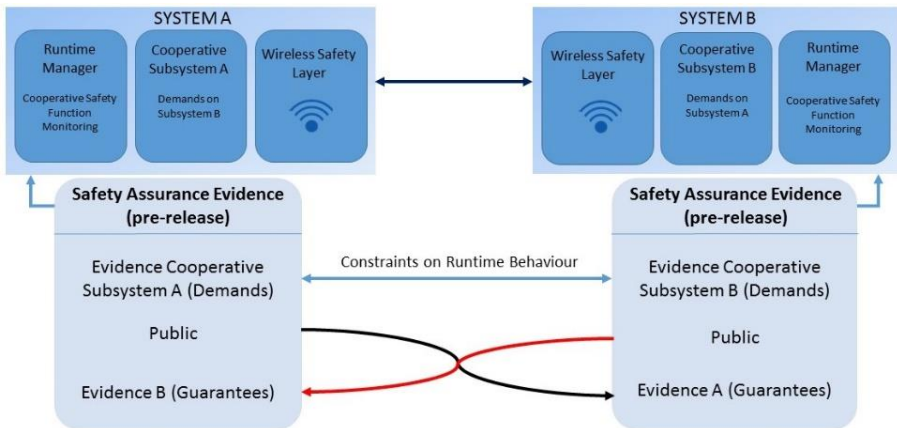


OBJECTIVES

SafeCOP will provide an approach to CO-CPS' safety assurance, thus allowing their certification and development. The project will define a runtime manager to detect abnormal behaviors at runtime, triggering, if needed, a safe degraded mode. It will also develop methods and tools to certify cooperative functions and offer standards and regulations to certification authorities and standardization committees.



TARGET






SafeCOP targets Cooperating Cyber-Physical Systems (CO-CPS), that is systems that rely on wireless communication, have multiple stakeholders, use dynamic system definitions (openness) and operate in unpredictable environments. No single responsible stakeholder can be identified in these scenarios. Thus, safe cooperation realized on wireless communication and security is an important concern.

POTENTIAL IMPACT

- ✓ Lower certification costs
- ✓ Increased trustworthiness of wireless communication
- ✓ Better management of increasing complexity
- ✓ Reduced effort for verification and validation
- ✓ Lower total system costs
- ✓ Shorter time to market
- ✓ Increased market share

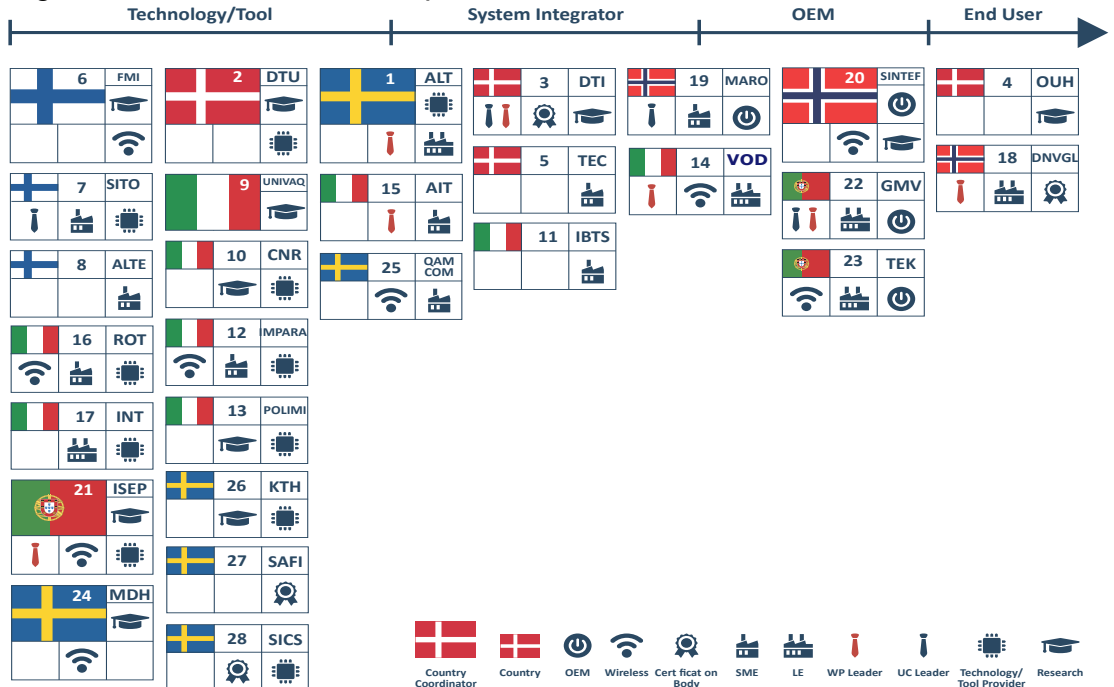
USE CASES

The 5 Use Cases, drawn from the maritime, automotive, and health application domains, will provide demonstration scenarios, requirements, and specific application needs in a wide range of operative conditions to drive the development of the SafeCOP technology.

<p>UC1. Cooperative moving of empty hospital beds</p>	<p>UC2. Cooperative bathymetry w/ boat platoons</p>	<p>UC3. Vehicle control loss warning</p>	<p>UC4. Vehicles and roadside units interaction</p>	<p>UC5. V2I cooperation for traffic management</p>
				
<p>Two-robot autonomous bed mover to wheel ordinary hospital beds to a central cleaning facility</p>	<p>Semi-autonomous boats forming a platoon cooperate to perform bathymetry measurements in the Trondheim fjord</p>	<p>When a vehicle loses functionality affecting others, all vehicles and the road infrastructure are notified</p>	<p>Road weather stations (RWS) collect weather measurements, including from other vehicles, and distribute them</p>	<p>V2I for <i>traffic management</i> using position and speed data from vehicle-borne transmitters to optimise traffic</p>

CONSORTIUM

The SafeCOP project comprises 28 partners from 6 countries, distributed among small and medium enterprises, large enterprises, research transfer organizations, and academic partners.



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