The ITEA project COSIBAS will build an incremental layer extending existing (open) platforms for IoT to enable the creation of highly innovative cognitive solutions for IoT domains.

ADDRESSING THE CHALLENGE
The Digital Transformation is driven by IoT-technologies. In 2020, 50 billion devices will be connected to the internet. However, current IoT-stacks are frequently focused on handling of data, but semantic properties and descriptions are generally missing. At the same time, the amount of data is rising and requires a sophisticated interpretation through analytics to generate business value in terms of faster detection and improved decisions. Therefore, combining IoT environments with cognitive AI services becomes necessary but remains difficult. Additionally, legacy systems are also rarely supported in the commercial and industrial domains, so cognitive services are needed to take automation to the next level.

PROPOSED SOLUTIONS
COSIBAS will build an abstraction layer in form of cognitive enablers and services between existing platforms for IoT and AI components with the purpose to enable the creation of highly innovative cognitive solutions and increase the interoperability across multiple IoT domains. Although such cognitive components will be application-independent, they will deliver intelligence and awareness and serve as blueprints for domain-specific solutions, as demonstrated through two use-cases: Smart Operations and PortCDM in sea traffic management and Smart Grid. Additionally, COSIBAS will be coupled with the existing FIWARE platform in order to provide a reference architecture to the industry and extend the benefits of the IoT concept to industrial applications by enabling interoperability and integration for legacy systems into existing IoT platforms.

PROJECTED RESULTS AND IMPACT
COSIBAS clearly differentiates from available solutions and approaches mainly in its support for legacy systems and software. COSIBAS results in both use cases will demonstrate that the application of cognitive solutions is possible without the need of extraordinary investments or completely replacing well-functioning legacy systems. By supporting legacy systems, sectors in which (control) applications are not easily updated can enter the Software Solutions, Services, Applications and Geography market – expected to grow to USD 883.55 billion at a CAGR of 32.4% by 2022.

COSIBAS will intend to satisfy the multi-disciplinary needs of SME industry by offering a consolidated platform that lowers the barriers for cognitive application development, in a way that encourages SMEs/industries to modernise infrastructures with cognitive solutions, but extending the effective life of their legacy systems, reutilising assets and reducing costs.
ITEA is a transnational and industry-driven R&D&I programme in the domain of software innovation. ITEA is a EUREKA Cluster programme, enabling a global and knowledgeable community of large industry, SMEs, start-ups, academia and customer organisations, to collaborate in funded projects that turn innovative ideas into new businesses, jobs, economic growth and benefits for society.

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COSIBAS

Project start
October 2018

Project end
September 2021

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