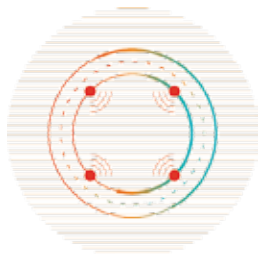


The capabilities of the CLASS framework will be demonstrated on a real smart-city use case

STAY TUNED

CLASS

www.class-project.eu



1

Featuring a heavy sensor infrastructure to collect and process in real-time a vast amount of data across a wide urban area



2

Connected cars equipped with heterogeneous sensors/actuators and V2X connectivity to enhance the driving experience and preparing the technological background for the advent of autonomous vehicles



3

Deploying advance urban mobility applications based on a combination of data-in-motion and data-at-rest analytics to efficiently coordinate car and city computing resources



@EU_CLASS



[linkedin.com/company/classproject](https://www.linkedin.com/company/classproject)



www.class-project.eu



Coordinating Edge and Cloud for Big Data Analytics



The CLASS project has received funding from the European Union's Horizon 2020 research and innovation programme under the grant agreement No. 780622



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Vision

Computational challenges of smart cities **can be effectively addressed by coordinating** computing resources across the compute continuum

Integration of technologies from multiple computing domains (Big-data, HPC and real-time embedded) into a **single development framework**



Advanced data-analytics solutions



HPC techniques for an efficient workload distribution



Timing analysis techniques



Parallel heterogeneous embedded processor architectures



Sensor fusion from data-sources coming from city and vehicle sensors

Main characteristics of the CLASS Software Architecture



Coordinate edge and cloud computing resources



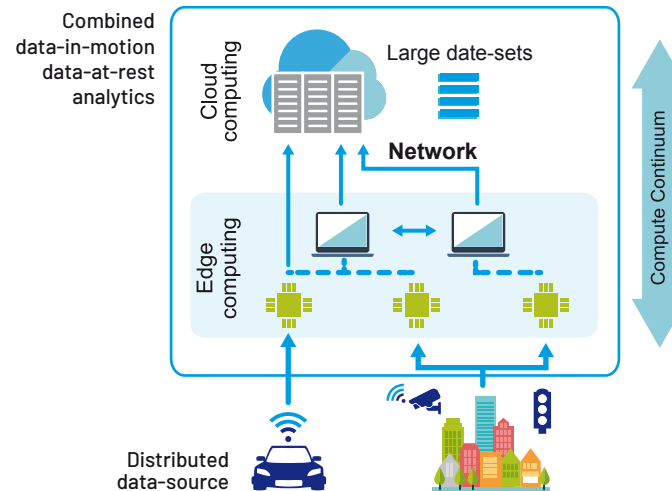
Distribute big-data workloads with real-time requirements along the compute continuum



Combine data-in-motion and data-at rest analytics



Increase productivity in terms of programmability, portability/scalability and (guaranteed) performance



Applications Use Cases

Intelligent traffic management, acting on traffic lights and smart road signals

- “Green routes” for emergency vehicles
- Traffic enhancement based on intelligent cross road management



Advanced driving assistance systems (ADAS)

- Intelligent cross road management based on obstacle detection
- Automated valet parking systems

