



IMPERIUM

IMplementation of Powertrain control for Economic, low Real driving emISsions and fuel ConsUMption

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IMPERIUM – KEY FACTS

- **Project name:** *IMPERIUM*
Implementation of Powertrain control for Economic, low Real driving emissions and fuel Consumption
- **Call:** H2020 GV-06-2015
- **Project duration:** Sept. 2016 – Aug. 2019 (3 years)
- **Overall budget:** 9,14Mi€
- **Coordinator:** Alois Danninger, AVL List GmbH

Consortium

➤ Truck manufacturers



➤ Suppliers



➤ Academia



Link: <http://www.imperium-project.eu/>

Scope

Fuel economy is a key aspect to reduce operating costs and improve efficiency of freight traffic, thus increasing truck competitiveness.

Under the coordination of AVL, the main objective of the IMPERIUM project is to achieve **fuel consumption reduction up to 20%** (diesel and urea) whilst **keeping the vehicle within the legal limits for pollutant emissions**.

The IMPERIUM consortium, regrouping major European actors, is **responsible for 45% of the heavy duty vehicles manufactured in the EU** and is able to provide a **100% European value chain** for the development of future powertrain control strategies for trucks.

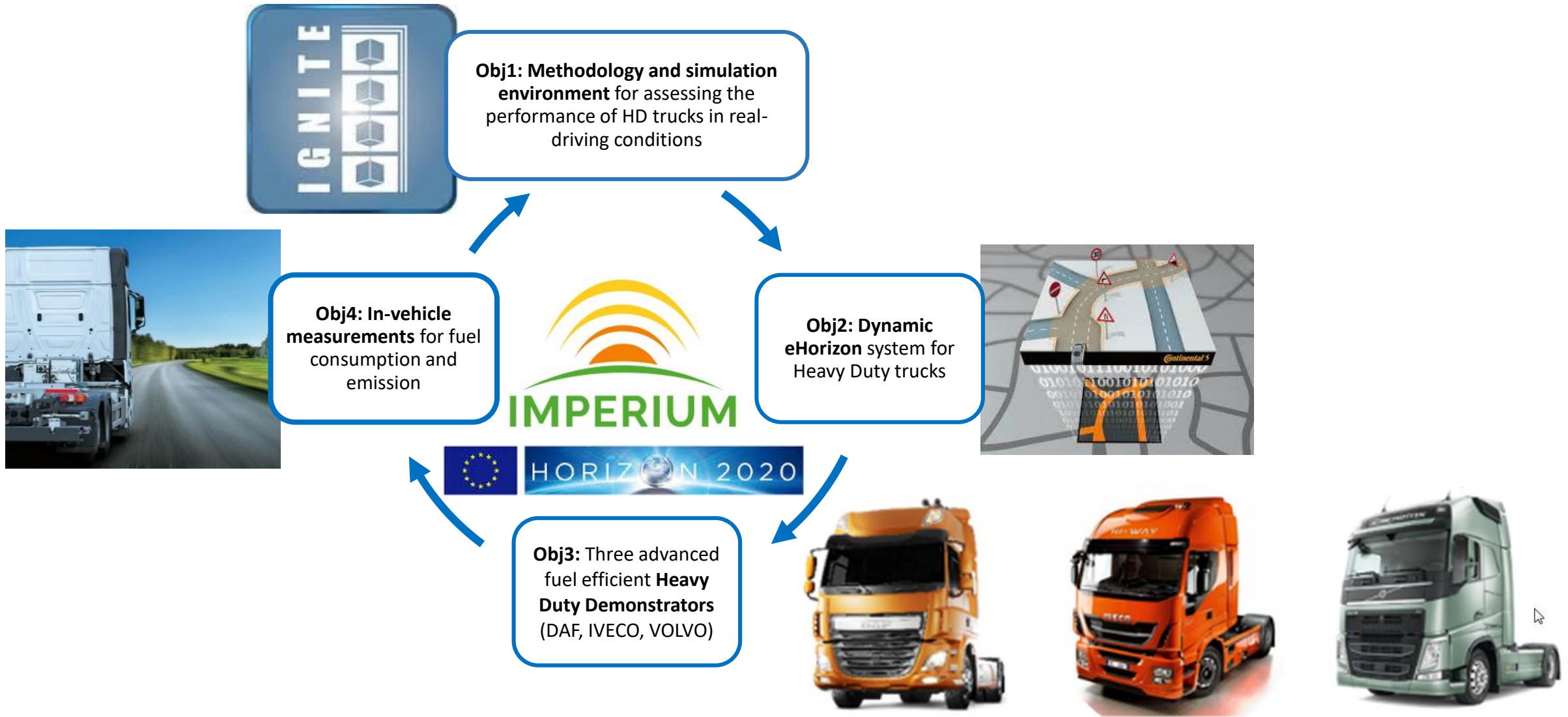
Approach

The technical approach for the IMPERIUM project is to develop **new means of predictive and comprehensive powertrain control** in an optimal way, exploiting the full potential of the individual systems for each vehicle application and mission.

The approach relies on the three following stages:

- **Direct optimisation of the control** of the main powertrain components (e.g., engine, transmission) to maximize their performances.
- **Global powertrain energy manager** to coordinate the different energy sources and optimize their use depending on the current driving situation.
- Provide a more **comprehensive understanding of the mission** (e.g., eHorizon, mission-based learning) to enable long-term optimization strategies.

THE IMPERIUM APPROACH



PROJECT STRUCTURE

