

ULYSSES

The future propulsion as one system

■ Motivation and Objectives

The Project is a Coordination Action (CA) aiming to establish a platform for exchanging of information and strategic planning of EC funded research projects dealing with new propulsion technologies / concepts in the ICE/Hybrids domain. ULYSSES aims at:

- Identification of linkages among the involved projects,
- Integration of projects, thus improving synergies & facilitating technology transfer.

Major objectives are:

- Monitor the projects, identifying technology gaps and extracting trends in view of the EU strategic targets fulfillment,
- Establish links with engine projects in the field of rail and waterborne transport,
- Disseminate the projects outcome also via workshops,
- Follow the development of regulations impacting on projects objectives.

■ Project Plan, Milestones and Deliverables

The original duration of the project was 4 years from 01/06/2006 to 31/05/2010. The project was extended for 3.5 years until 30/11/2013 to cover EC funded research projects with following targets in the period 2014 – 2020:

- CO₂ and pollutant emission limits enforced by the EU, having particular regards to the real world emissions,
- 20% fuel substitution of fossil fuels by 2020.

The project plan is now based on two work packages dealing with coordination activity and consortium management. Items of interest are:

- Compression Ignition (CI) engines and the technology evolution of hybrids as well as range extenders,
- The use on vehicles of different alternative fuels (e.g.: synthetic biofuels),
- Spark Ignition (SI) engines applied to small vehicles hybrids / range extenders,
- A contribution from the Ulysses partners to the meetings, which are also open to other EU Automotive companies as zero-budget partners.

Deliverables consist in periodic updates of the project sheets with main achievements of the last year and the main deliverables of the year, periodic updating of the progress of the CA projects in approaching the strategic targets and exploitation / dissemination related to the ICE / hybrid domain with organization of workshops.

■ Technical Approach and Achievements

The mission of ULYSSES is to identify the areas of technological improvement covered by the powertrain projects. ULYSSES has to indicate how the CA projects can meet the EU strategic targets and the technology gaps where to address the future research.

From June 2010, the CA incorporated the remaining FP6 projects (e.g.: HI-CEPS) and the FP7 projects (e.g.: BEAUTY, INGAS, LESSCCV and POWERFUL) plus any new ones in the ICE/hybrid domain as well as widen its scope to train engines and possibly look at links with big-engine technology derivatives in the waterborne sector, particularly in view of dissemination activities.

Planned activities for the sixth year:

- Finalize the outcome of the Brussels workshop on “Enabling technologies of the IC engines, including also the potential of hybridisation, to reduce CO₂ and pollutants in on- and off-cycle operations of passenger cars”;
- Proceed with the release of the project sheets and the periodic updating of the CA projects in achieving the EU strategic targets;
- Organise a workshop to be associated with the annual review of the CA projects.

Budget	1.2 M€	Funding	1.2 M€
Duration	90 months	Start	June 2006
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