

TRANSFORMERS

The **overall objective** of the TRANSFORMERS project is to develop and demonstrate innovative, energy efficient semi-trailer combinations for long haul transport missions. The TRANSFORMERS solutions target a 25% energy consumption reduction per tonne.km without affecting the road infrastructure.

This is achieved through the following innovations:

- A trailer mounted "Hybrid-on-Demand" (HoD) electric driveline, including a pre-standardisation truck-trailer communication framework to enable widespread market introduction and provide planning certainty for future RTD activities.
- Mission-based, transformable vehicle combination aerodynamics.
- An internal trailer design offering optimised loading efficiency.
- Mission adaptability to allow optimisation of the vehicle combination for each load or transport mission.

Facts & Figures

Full name: Configurable and Adaptable Trucks and Trailers for Optimal Transport Efficiency

Acronym: TRANSFORMERS

Duration: 4 years

End date: 31 August 2017

Total budget: 7.9 M€

EC Funding: 5.2 M€



Introduction by the Project Coordinator

On behalf of the **TRANSFORMERS consortium** I am pleased to present the fourth edition of the project Newsletter. The TRANSFORMERS consortium are developing and demonstrating 2 innovate semi-trailers; an energy efficiency (HoD) trailer, and a load optimisation trailer. This edition focuses on the key innovations in the energy efficiency trailer including the aerodynamic optimisation of the overall vehicle combination, and the trailer mounted "Hybrid on demand" electric driveline.

From September 2016 the TRANSFORMERS energy efficiency and load optimisation trailers will be seen on roads across Europe. The improvements offered by the energy efficiency trailer will be measured by Volvo on representative long haul routes across Sweden, before being transferred to the Netherlands where DAF will undertake further measurements. The load optimisation trailer will be tested by Procter & Gamble along key trans-European routes. [See more...](#)

Paul Adams, VOLVO, TRANSFORMERS Project Coordinator

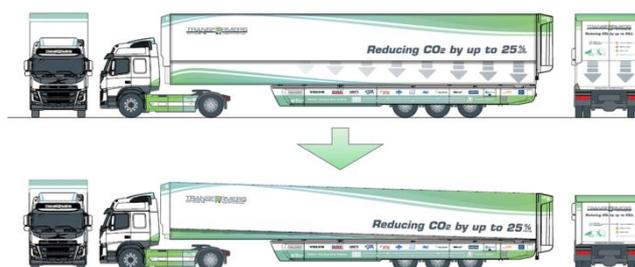
Dissemination

[Flyer](#)

[Newsletter 1](#)

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Consortium

The [TRANSFORMERS - consortium](#) consists of 13 partners from 6 different European countries.

Truck manufacturers

- VOLVO
- DAF

Trailer manufacturers

- Schmitz Cargobull
- Van Eck

Research institutes

- Fraunhofer
- TNO
- Fehrl
- IFSTTAR
- ViF

End users

- Procter & Gamble
- IRU Projects

Supplier

- BOSCH

Service Supplier

- Uniresearch

European Commission

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 605170.



Energy Efficiency Trailer – Aerodynamic Optimisation

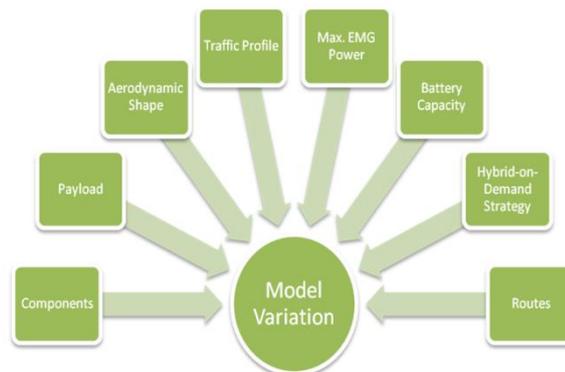
This article explains the aerodynamic measures which will be installed in the Transformers energy efficiency demonstrator. This includes measures which are already available on the market as well as newly developed features like the movable roof and the optimized front bulkhead cover, which you can see in the figure below. [Read more...](#)

Energy Efficiency Trailer - Trailer Mounted "Hybrid-on-Demand" Electric Driveline

This article explains the key developments with the trailer mounted "Hybrid-on-demand" electric driveline, and the pre-standardisation communication framework. [Read more...](#)

Holistic Simulation

The idea of the holistic simulation approach is to simulate the whole driveline of the Transformers Truck/Trailer in one model, including environment information, aerodynamic effects and hybrid-on-demand (HoD) components. [Read more...](#)



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