DELIVERABLE REPORT

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DISSEMINATION LEVEL:	**RESTRICTED**
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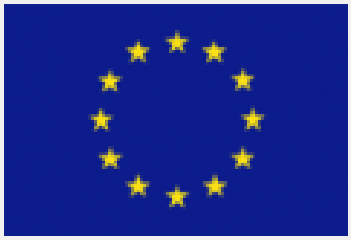
PROJECT TITLE:	**CONFIGURABLE AND ADAPTABLE TRUCKS AND TRAILERS FOR OPTIMAL TRANSPORT EFFICIENCY**
PROJECT START DATE:	**01/09/2013**
PROJECT WEBSITE:	**WWW.TRANSFORMERS-PROJECT.EU**
COORDINATION:	**VOLVO (SE)**
PROJECT MANAGEMENT:	**UNIRESEARCH (NL)**

Executive summary

This deliverable is about the selection of routes that were used for the simulations and a short energy calculation to compare these routes with the scenarios defined in WP1. In addition to the simulation results in Deliverable 2.3, further results with a new HoD energy strategy are presented.
First, this deliverable describes the routes that have been used for the simulations in more detail. The scenarios were defined in an early stage of the project in WP1. With the help of Volvo, TNO and Cerema, real world routes were selected that fit into these scenarios, and most importantly for which the necessary data was available. To prove that the routes are acceptable for the scenarios, an energy calculation was done for all of them. The altitude profiles were used to estimate the potential traction and braking energy and the energy ratio of the complete route. In this way, it could be shown that the routes that were used for the holistic simulations fit the conditions of the defined scenarios from WP1.
In chapter **Error! Reference source not found.** and chapter **Error! Reference source not found.** the key variations (maximum EMG power, battery size, weight, aerodynamic and HoD strategy) for the holistic simulations are described, as well as the simulation matrix that was created to coordinate the high number of simulation cases. About 700 high fidelity simulations have been done over the course of the project.
In the last chapter the results of additional holistic simulations can be found. These simulations were done using a different HoD energy strategy to that reported in Deliverable 2.3. In the simulations that are described in Deliverable 2.3 the "Case 3" strategy was implemented, the strategy was changed to "Case 4" to see if further improvements of the HoD system can be achieved. Case 3 was used for the major part of the holistic simulations because this was the strategy that was implemented at the TRANSFORMERS trailer for the Volvo on-road tests. An additional test run by Volvo showed good results with the Case 4 strategy and therefore further simulations were performed to see the impact of this strategy. The explanation of the new strategy and the results are described in chapter **Error! Reference source not found.**. The results of the simulations show that this strategy has high potentials especially for highway scenarios and that the HoD system is capable of saving more fuel than with the "Case 3" strategy.

Acknowledgment



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