

## DELIVERABLE REPORT

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## Executive summary

This report sets its focus on three topics. The first part is about the drive axle ratio of the trailer. The components of the trailer were all fixed with the exception of the drive axle. A number of different ratios were available and the idea was to analyze a real truck mission from Hamburg to Würzburg using the velocity and altitude profile. With that the supposedly required energy was calculated for every given ratio (see chapter **Error! Reference source not found.**).

The second part is about a model library developed by ViF (see chapter **Error! Reference source not found.**). It is a web application for model and version management. Simulations like the ones in the Transformers project are based on many different models and components. These components are developed with different simulation tools and there is often more than just one model for a certain component. The model library was designed to handle this amount of models. It has also a direct connection to the co-simulation tool ICOS which will be used in this project.

The third part is about the simulation and its parameters. In the Deliverable 2.1 the components and their interfaces were described in detail. The next step was to find parameters to get as realistic results as possible. Therefore parameters for every component were proposed and confirmed by the project partners. Some parameters are more important for a better performance of the vehicle and it was agreed to vary these parameters to find the best configuration. Because of the big number of simulations a few components were left out of this first parameter variation (thermal and cooling system, ecoDriver, aerodynamic changes and different routes) and a holistic simulation model in MATLAB/Simulink was created (see chapter **Error! Reference source not found.**).

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