



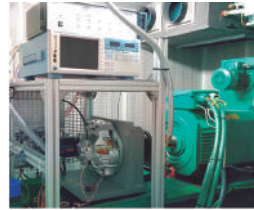
STREAMLINING THE NEXT GENERATION OF URBAN VEHICLES



Intensive cooperation between Behicle project partners crystallizes in the safe, lightweight and performing urban car concept proposed during the inception of the project. The result of extensive car redesign and performance optimization loops is captured and showcased in the shape of novel car architecture and attractive bodywork.

Featuring improved crashworthiness behavior obtained by comprehensive FEM analysis and implementation of lightweight solutions, the foundations for a best-in-class crash performance are seeded. The thoughtful combination of composite and metallic materials (“putting the right material in the right place”), the understanding of the deformation mechanisms of the complex arrangement of the BEHICLE structure and the integration of state-of-the-art restraint systems, allows for a decrease in passenger vulnerability.

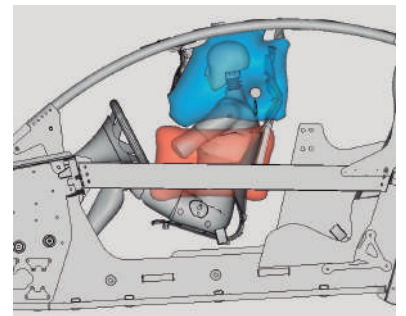
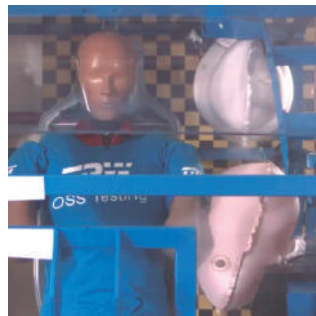
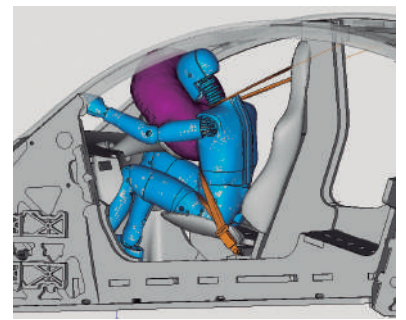
POWERTRAIN CONFIGURATION AND VALIDATION



The proposed motor and drive configuration have been the main subjects for study during the last 12 months. The motor's performance and efficiency increase have been maximized, adopting loss minimization strategies. Likewise, the multiple ratio transmission

system adopted (1:16) results in augmented motor performance. For this purpose, adequate constructive solutions have been implemented. Finally, the real behavior and performance check considering representative driving cycles has been carried out in test bench.

IMPLEMENTATION OF PASSIVE RESTRAINT SYSTEMS



The implementation of Curtain, Side and Compact Driver airbags has been performed in an ever-evolving BEHICLE passenger cabin environment, tuning deployment mechanisms whilst guaranteeing optimal protection of the driver. Bag shape, inflator location, and global module arrangement have been carefully selected and the functionality validated utilizing a static deployment test rig replicating the BEHICLE.



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PROJECT PARTNERS



MORE INFO

<http://behicle.eu>

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