

# **PLATFORM-BASED APPROACH VS FILE-BASED APPROACH - SEAMLESS SOLUTION FOR TOPOLOGY OPTIMIZATION**

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## **ABSTRACT**

The CAE tools like FEM, CDF, etc. are commonly used to support design process as a validation methods. Since many years they help to decrease number of prototypes, costs of physical testing and reduce "time to market". It's established and effective approach. However the optimization tools must be used on an earlier stage of design process to be effective and to bring a real value - better, more innovative product. Unfortunately the complexities of the typical file based processes which are used in design are the key obstacle of the common application of the optimization tools in the industrial workflows. The multiple data transfers and conversions such as CAD geometries, FEM meshes and results are required. It makes optimization hard to use as a routine task. The presentation will discuss the requirements to create platform based approach for the design driven by optimization in seamless environment. The key challenge is how to manage data, tools, methods and team's competences in such a way to work on constantly updated information and how to eliminate multiple data transfers and conversions.