Abstract: The presented use-case was part of a solution for the improvement of the collaboration between the teams for embodiment design and simulation. The project was conducted in cooperation of a German premium car manufacturer and the Institute for Product Development. As part of the overall strategy, which implies the domains product, process, human actors, information, and IT-support, a method was developed together with the Jönköping International Business School. The main focus was to define function-oriented virtual teams within the organizational structure to improve information exchange and understanding between departments. The data was collected within the company and contains relevant information about the engineers involved in the process and their participation in the development of product components and the validation of the product’s functions. Additionally, the interrelations of components and functions were identified, describing the problem by four domains: design engineers, simulation engineers, product components, and product functions. Source for this data were reliable descriptions of function validations, job descriptions, etc. The methodical approach aims at the function-oriented definition of teams by setting up a domain mapping matrix of components and functions, leading to a two-dimensional structure of the product’s properties as a starting point for the team-building process. The algorithm-based optimization and clustering of this structure led to a definition of relevant blocks, containing both product components and functions. Derived from those blocks, virtual teams were established, involving the adequate
engineers. The presentation will show the method and results of this procedure as well as the benefit for
the company.

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