

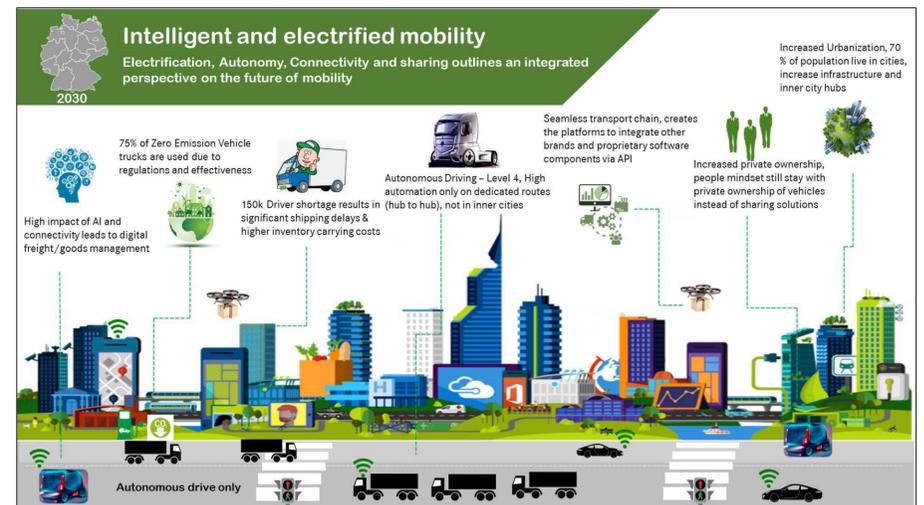
Development of scenario analysis methodology for future transportation and logistics at Daimler Trucks

Introduction: The master thesis has been carried out at Daimler Trucks. In an uncertain world, assessing future opportunities and threats are serious management issues. If an organization want to survive and grow, it must be well prepared to adapt quickly to the requirements of the future. The difficulty arises in predicting these technological, social and economic changes in the future which makes the strategy planning more challenging for the management. Under these conditions, traditional planning tools such as market share-growth matrix or porter's five forces fail to meet the demands of strategic planners and technology managers as they are generally based on the assumption of constant growth and build their recommendations which are simply no longer justifiable in many organizations. Since scenarios act as an exploratory tool for assessing the potential future and aid the organizational strategies, a systematic and vibrant method is required for the organization to build scenarios.

Objectives: Even though there are different scenario planning methods, it is important to conduct the theoretical and empirical research on developing a methodology which is meeting the requirements, feasible with the existing resources, and easily adaptable to the organization. Indeed, the main objective of the research is to understand the significance of scenario planning and develop a scenario planning methodology which supports Daimler trucks to anticipate and develop appropriate strategies.

Methodology: Every methodology has their own benefits and drawbacks but choosing an appropriate method according to the organization and research field is very important. Based on the literature review and experts suggestion, this research employs a cross-impact based scenario generating method called as **"Cross-Impact Balance (CIB)"** analysis developed by Dr. Wolfgang Weimer-Jehle to find the plausible alternative scenarios. The CIB method includes six phases and the structure of this thesis also follows the order of this six phases.

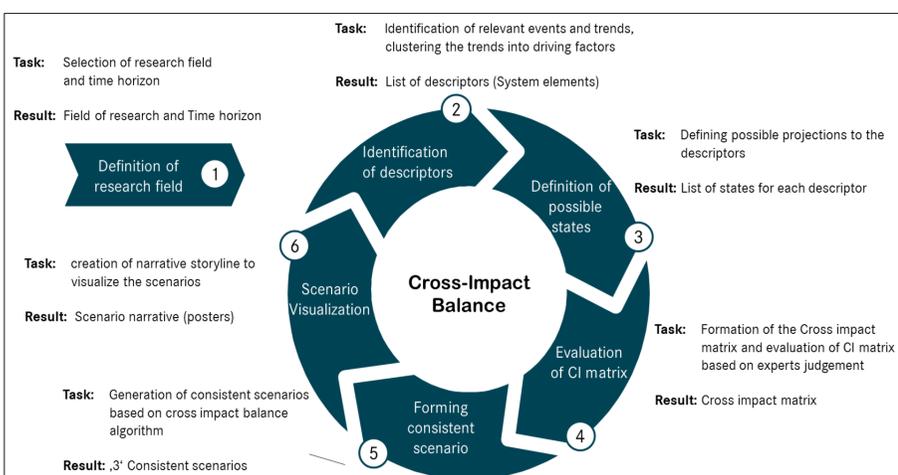
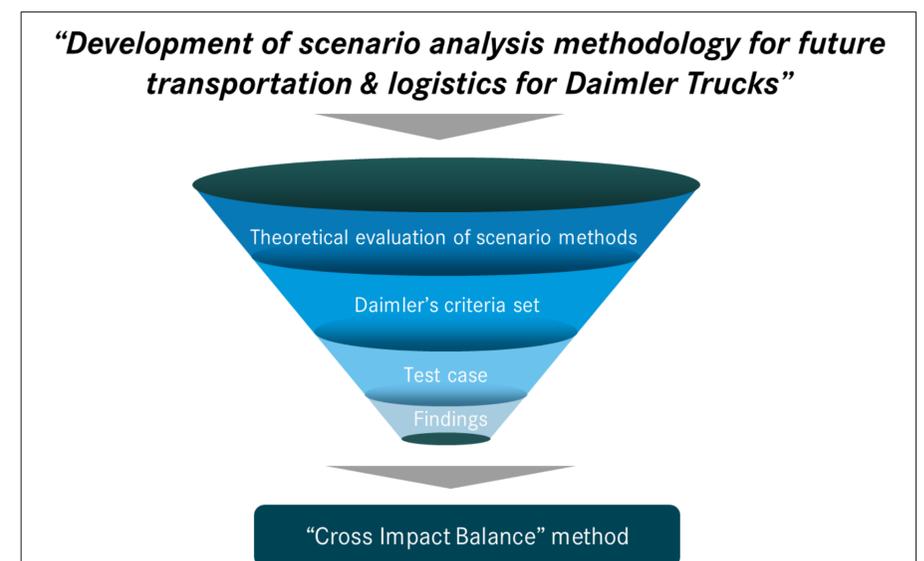
This master thesis begin with the definition of the research field, scenario premises and proceeds step by step forward toward the systematic projection of future transportation and logistics scenarios. Test case has been performed using CIB. **'Storyline and posters'** are used as scenario visualization tools



Scenario visualization

On the basis of this practical example, various challenges are discussed by providing superfluous guidance and practical experience.

Findings: The quality of the scenarios and their storyline about the projections depend on the methodology. Scenarios generated out of gut feelings and intuitions are not acceptable in the organization. Daimler Truck requires methodology which is more systematic, supported by strong data and easy to understand. Even though certain methods have countless benefits in general, it is important to choose a method which satisfies the criteria's of an organization. 'CIB' has a methodical procedure which provides high transparency of process ('No black box magic'). The traceability of the impact of specific driving factor in a scenario is possible. All the important driving factors are considered in the scenarios. Nevertheless, evaluation in CIB process is more dependent of experts group (external experts may be required).



- Weimer-Jehle, Wolfgang (2006). "Cross-impact balances: A system-theoretical approach to cross-impact analysis".
- Kosow, Hannah and Robert Gaßner (2008). "Methods of Future and Scenario Analysis. Overview, Assessment, and Selection Criteria".

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