Use of "Scenario Methods" in the Education for Aircraft Design

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Compared to other industries, the aviation sector is characterized by long product cycles and a complex marketing environment. Both aspects have to be considered by the airplane manufacturer in order to define their product strategy in a sustainable and profitable way. The development of robust requirements for future products combined with a set of different market possibilities are essential element for a balanced long term strategy in the aeronautical business. Business managers, acting in the strategic departments, will need a set of instruments like Scenario methods, market forecast techniques and future trend analysis, to develop their robust strategy.

At the Technische Hochschule München, a student course has been developed, which explains the scenario methodology and involves all student to actively participate in this scenario process.

To be as realistic as possible, a new subject is chosen each year for the scenario process. The course is held as workshop (three times two days with some tasks in between), where students learn and are directly involved with the development of all steps, which lead to different future scenarios. As the scenario process requires the participation of several different specialists in order to have a global view, some specialists from industry are invited, to give their input to the process.

The paper will explain on one example, how the scenario process is structured, will explain the essential steps in the process and will give results, obtained out of such a process. In the winter 2000/2001, the subject of the scenario process was dealing with "Unconventional civil aircraft configurations in 2030+". This scenario process will be used as example.