

Frankfurt University of Applied Sciences
Aviation MBA – Project Management (Module 3)

Prof. Dr.-Ing. Benjamin Bierwirth

Examination

- 18th February 2016 -

Time: 60 minutes

Remark: 60 points can be reached as a maximum

1. Project characteristics and definition

Please name 5 typical characteristics of a projects OR formulate a short definition of a project (1 sentence)

(5 points)

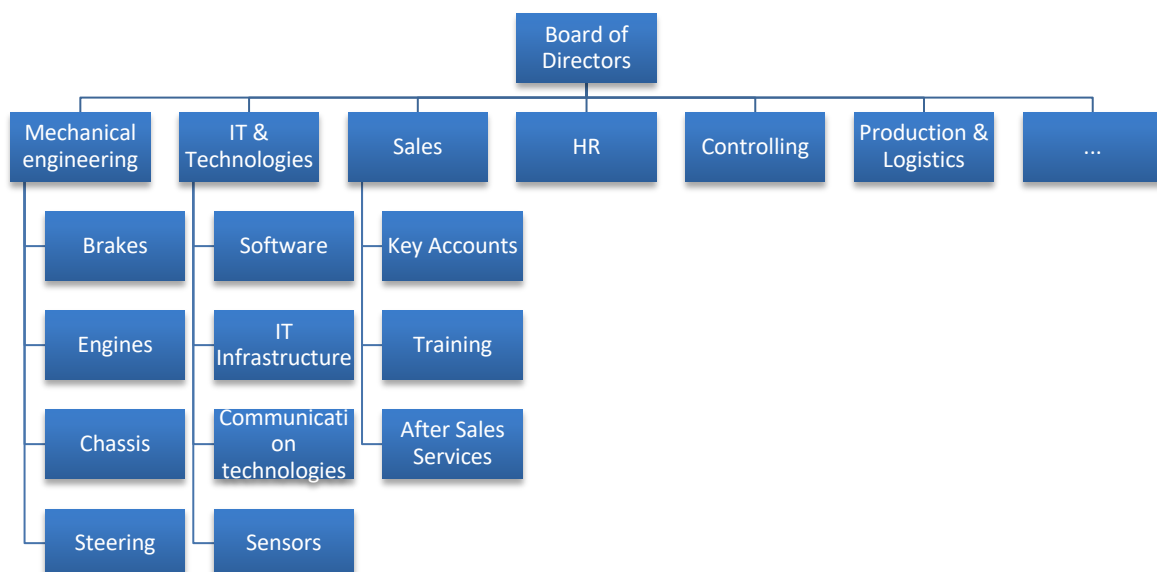
2. Dimensions of Project Management

Please explain the contents and necessity of 2 dimensions in project management.
(You can freely choose from the 4 dimensions)

(10 points)

The following project example is the basis for the following tasks:

Global Tow Truck Inc. wants to develop an autonomous driven tow truck. The company is organized in functional divisions.



The following statements are the result of a first brainstorming of various managers and the board of directors which You as the designated project manager should now transfer.

- Time-to-market for the new tow truck should be less than 2 years. We'll have to work in parallel to keep this timeline.
- For backup purposes manual operation with a driver is still necessary
- Various communication technologies (Wifi, GSM) have to be tested
- Testing of the tow truck requires at least 3 months
- Safety sensors have to be developed
- A complete new IT infrastructure (Database and Production Steering Server) has to be developed
- The budget is limited to 1,500,000 € per year.
- We need a prototype as soon as possible to get customer feedback afterwards
- We have to agree on all specifications in 4 months. No more changes after that!
- Training courses and material for the central operator as well as the backup drivers have to be ready at the end of the project
- Almost all mechanical components (brakes, steering, engine, chassis) have to be adapted
- The Project Manager will report directly to the board. Necessary resources (experts) should be made available by the divisions.
- Integration is a key success factor which requires interdisciplinary project team and teamwork. Thinking in functional silos or division is the road to failure!
- We cannot free our most valuable experts from all tasks and duties for 2 years. That is impossible! Who should do the work in the meantime?

3. Project Agreement and Deliverables

Please describe the contents of a project agreement for the above mentioned project and name 3 deliverables.

(10 points)

4. Project Organisation

There are three basic types of project organization (Coordination, Matrix, Pure project structure). Please choose the most suitable type for the above mentioned project and explain/ justify Your choice. Draw the extended company organizational chart with the project.

(15 points)

5. GANT-Chart, Milestones and Critical Path

Please construct a GANT-chart based on the information of the above mentioned project. You'll have to estimate the duration of some work packages and may add work packages which are not mentioned above, but necessary for logical reasons. Insert at least 4 milestones and highlight the Critical Path.

Use the following notation:



Milestone



Work package

(20 points)

Good luck !