

Product Development Management

IAR061

2016-10-24, 14.00 – 18.00

M-building

Maximum 2 pages per question – 10 total

Please write your student code on each page

The exam result will be published in Ladok no later than November 11, 2016. Review of the marking takes place at the division of Innovation and R&D management, room 3357, on November 17. The request for correction shall be in writing and must be delivered to the division no later than 2 weeks after the opportunity for the review. After this the possibility for reviewing and correction ends. Only obvious errors, such as errors in the summing of the result will be corrected later. When the student chooses to bring the exam home all possibilities for correction of the result ends.

Questions will be answered in the room around 15.00
by Lars Trygg

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Master in Product Development
Chalmers University of Technology

Product Development Management – IAR061

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1. Project portfolio management and R&D dilemmas

- a) What are the three basic goals with Project portfolio management and describe one methods or tool (per each) that you can use in order to achieve these goals respectively (5p)
- b) Managing R&D is really much about management of dilemmas. Describe three typical managerial dilemmas or “trade-offs” that commonly needs to be handled by R&D managers. Relate to examples given by the guest lecture Stefan Brämberg from Ascom (5p)

2. Product development issues

Discuss, in short, the following five issues:

- a) What is the underlying thinking about the “Stage-Gate Process” set-up? (2p)
- b) What does “Success Assured” mean within “lean development thinking”? (2p)
- c) Mechanistic vs. Organic structures. What is an Organic Structure? (2p)
- d) What is a “Dominant Design”? (2p)
- e) What is a “Product Platform”? (2p)

3. Organizing product development

- a) *Organization Design* by Jay Galbraith (lecture content from 160919 when we talked about organizational theory) describes the need for creation of lateral relations in an organization in order to increase the capacity to process information. However, before this need for lateral relations emerges, **organizations** use other forms of integration mechanisms in order to achieve unity among different actors/functions. Describe these basic organizational mechanisms. (5p)
- b) What kind of team structure, using the definitions introduced by Wheelwright and Clark, would you claim is used by Applied Material in the 5000 project? Illustrate your suggestion with clear examples from the case. (5p)

4. Learning goals and the Topic reports

Recall the learning goals and aims of this course. Pick three out of the nine topic reports and describe the aim and the learning points from each of them. Describe also how these learning points relate to the learning goals of the course. *Select your topics so that you cover as much of these course learning goals as possible.* (10p)

5. Product development methods and tools

- a) Explain the difference between DFM and DFA. Describe also how and when DFA and QFD can/should come to play in the development process. (5p)
- b) In “Lean Product Development” there is a clear distinction between the “Knowledge value stream” and the “Product value stream”. What does this mean, what is the difference between these two? (5p)

Good luck / Lars