

## Organisation Dynamics

### Written Exam

3 February 2005

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*This written exam is open book, thus you are allowed to use the course materials (reader, assignments, lecture slides) during the exam. Make your best effort to finish the assignment within the available time. We are aware that you may not finish the complete model within the available time. To pass you have to provide enough of the organisation model, which is the true determinant of whether or not you obtained the necessary expertise in organisation modelling.*

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The following scenario describes the procedure of approving a PhD thesis and awarding the PhD title to a candidate as it is currently adopted by Dutch universities. (The procedure has been simplified for the purposes of this exercise.)

1. The process starts when the PhD student sends the finished manuscript to his/her supervisor who communicates back an opinion.
2. The PhD student then sends the manuscript to the promoter who has one month to communicate back his/her opinion.
3. As soon as the promoter approves the thesis, the student sends the thesis to a committee of three scholars, one of whom has been appointed to a chairman of the committee. The student also communicates to the beadle (*pedel* in Dutch) the approval of the promoter and a request to reserve a date for the defense. The beadle responds with a preliminary date. One month later the committee members send their opinions to the chairman who summarizes the results and communicates the committee's decision back to the student. The student then informs the supervisor and the promoter, confirms the date to the beadle and informs all parties about the defense date.
4. About six months later the official defense takes place. Present are the PhD candidate, the beadle, the committee and audience. The committee consists of 6 members one of which is the chairman. The procedure is started by the chairman who gives the floor to the candidate to give a short presentation in front of the audience. Exactly 15 minutes later the chairman starts the discussion. The chairman gives the floor to a member of the committee to ask one or more questions. The candidate answers the question(s) and the member of the committee communicates back to the chairman that he/she has no more questions. The chairman then gives the floor to the next member for a question. Exactly 45 minutes after the beginning of the discussion the beadle interrupts it with the words "Hora est!"
5. The committee then retrieves and discusses in private their decision.
6. Half an hour later the committee comes back and the chairman announces the decision. He/she then hands the certificate to the new doctor and asks the promoter to give a speech. After that the ceremony is closed by the chairman.

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### Assignment

Design an organisation and identify the (executable) dynamic properties (i.e., GI, RI, TP, RP) that enable modeling situations 3 and 4 as described above. You do not need to model the other situations.

Your solution must at least include the following elements:

- a) the organisation structure in diagram format
- b) the behaviour of the organisation, in terms of its dynamic properties
- c) a proof tree for the following organisational property (in situation 3)

#### OP:

If the promoter communicates the approval of the thesis

Then at a later point in time (s)he will be informed about the defense date