

BUSINESS PROCESS MANAGEMENT - EXERCISE

BUSINESS PROCESS MODELING AND TOOLS

GENERAL INFORMATION



- The feedback and points for the first exercise sheet have been uploaded to OLAT

 [Return and feedback](#)

- The second exercise sheet has already been published after the last lecture and is due on 25.05.22

EXERCISE 1

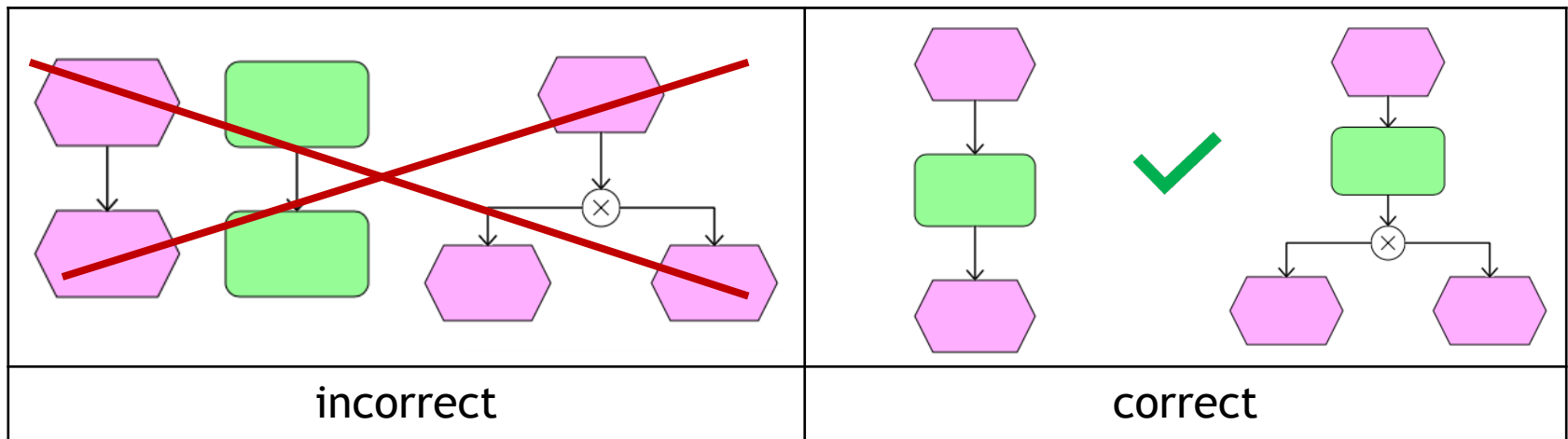


- In the first exercise you were asked to model processes using **EPC** and **BPMN**
- Based on your submissions, I will show and explain some of the most commonly made modeling errors
 - invalid models (= violation of modeling rules)
 - models that don't behave the way they are expected to
- Keep in mind: often, there is no single correct answer, but there are multiple ways to model a process correctly

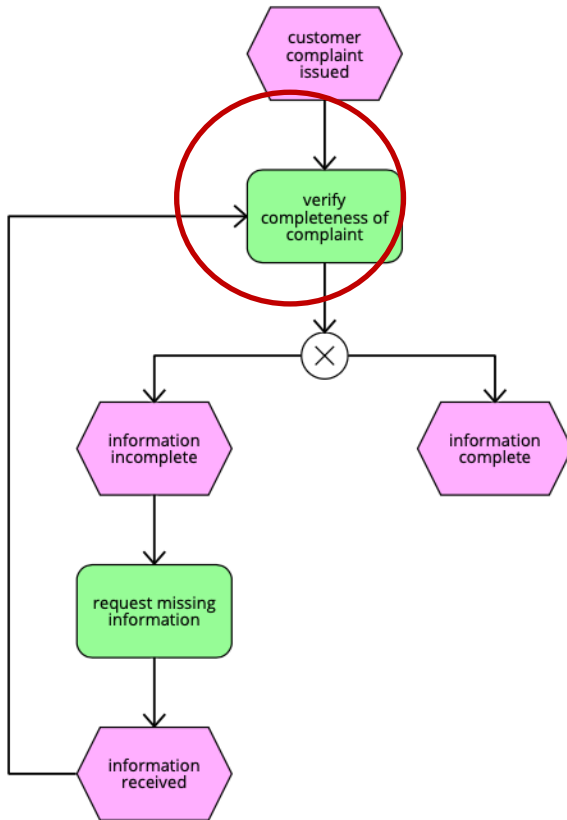
EPC - GENERAL RULES



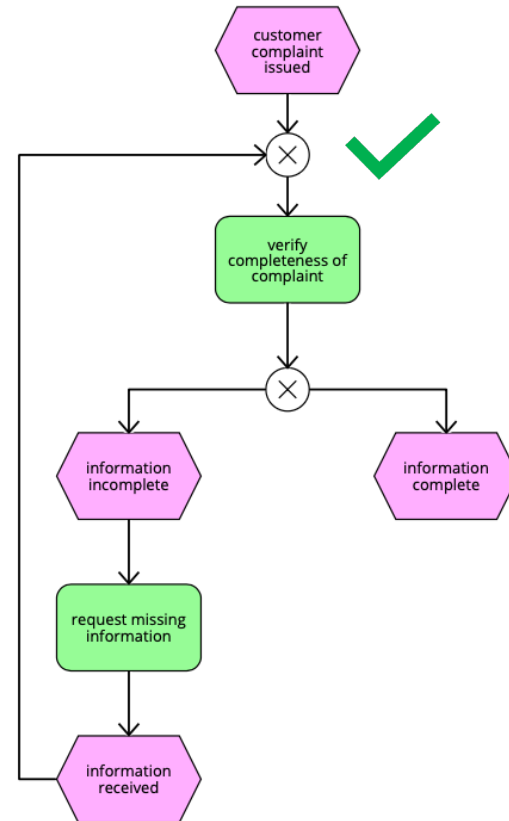
- Events are **states** (e.g., complaint issued) -> passive
- Functions are **actions** (e.g., issue complaint) -> active
- **ALWAYS** start and end with an event
- **ALWAYS** alternate between events and functions



EPC - GATEWAYS



incorrect

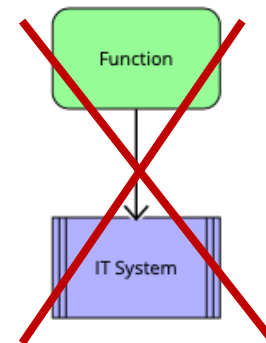
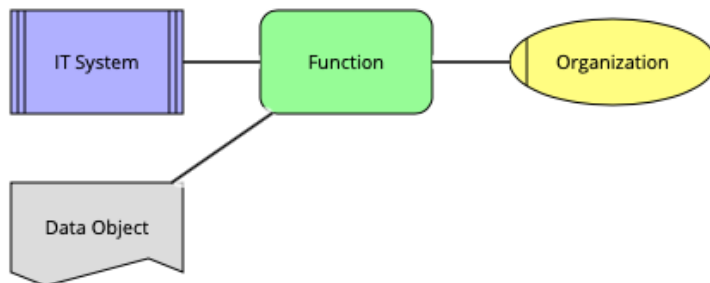


correct

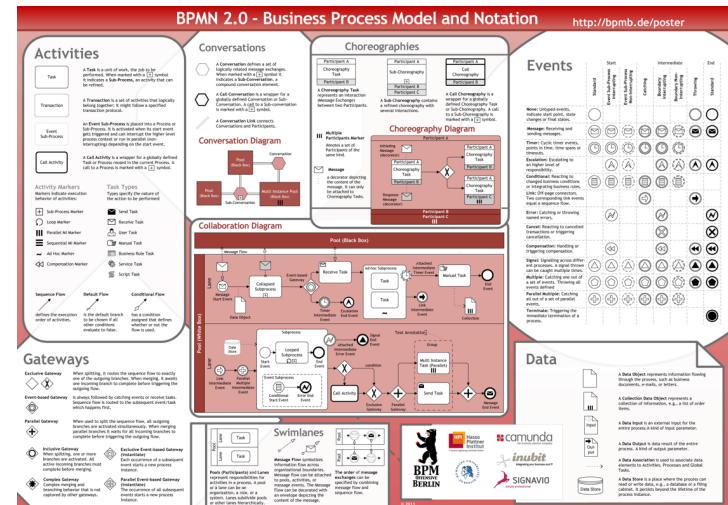
EPC - ADDITIONAL ELEMENTS



- In order to add information about the **circumstances** of a **function**, additional elements can be added (e.g., IT systems, organizations/roles, data objects)
- These elements can only be connected using relations, not using control flows



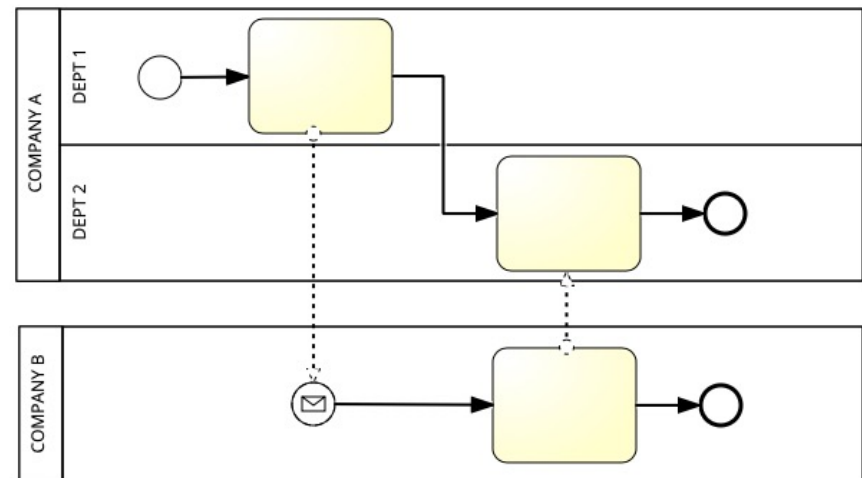
- You are required to be able to look up relevant information and specifications when modeling using BPMN
- BPMN Poster
(http://www.bpmb.de/images/BPMN2_0_Poster_EN.pdf)
- Specification
(<https://www.omg.org/spec/BPMN/2.0/About-BPMN/>)



BPMN - FLOWS



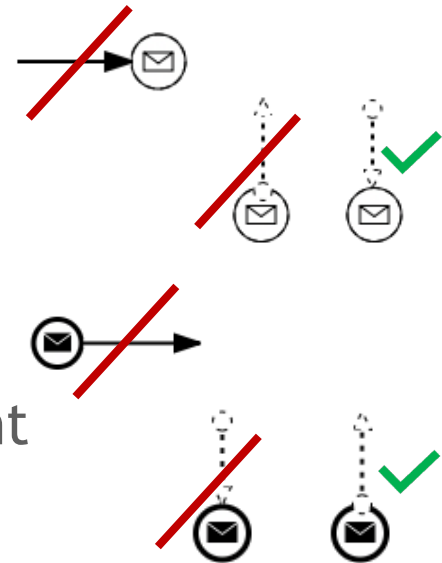
- **Sequence flows** define the execution order of activities
 - can only be used **within** pools
- **Message flows** represent information flow across organizational boundaries
 - can only be used **between** pools



BPMN - START & END EVENTS



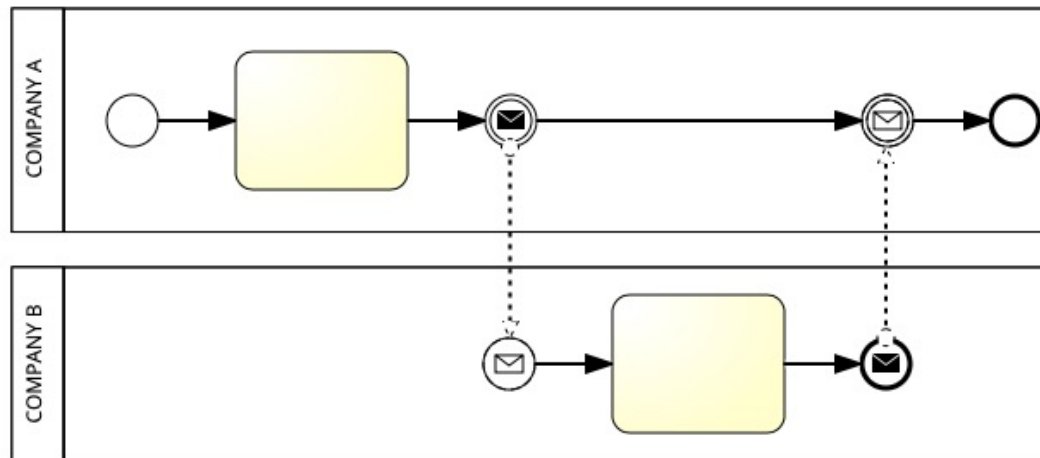
- **Start events** indicate the **beginning** of a process (i.e., the place where tokens are created)
 - no sequence flow can connect to a start event
 - message flows can connect to a start event
- **End events** indicate the **end** of a process
 - no sequence flows can go out from an end event
 - must not be target of message flows
- If there is a start event, there must at least be one end event and vice versa



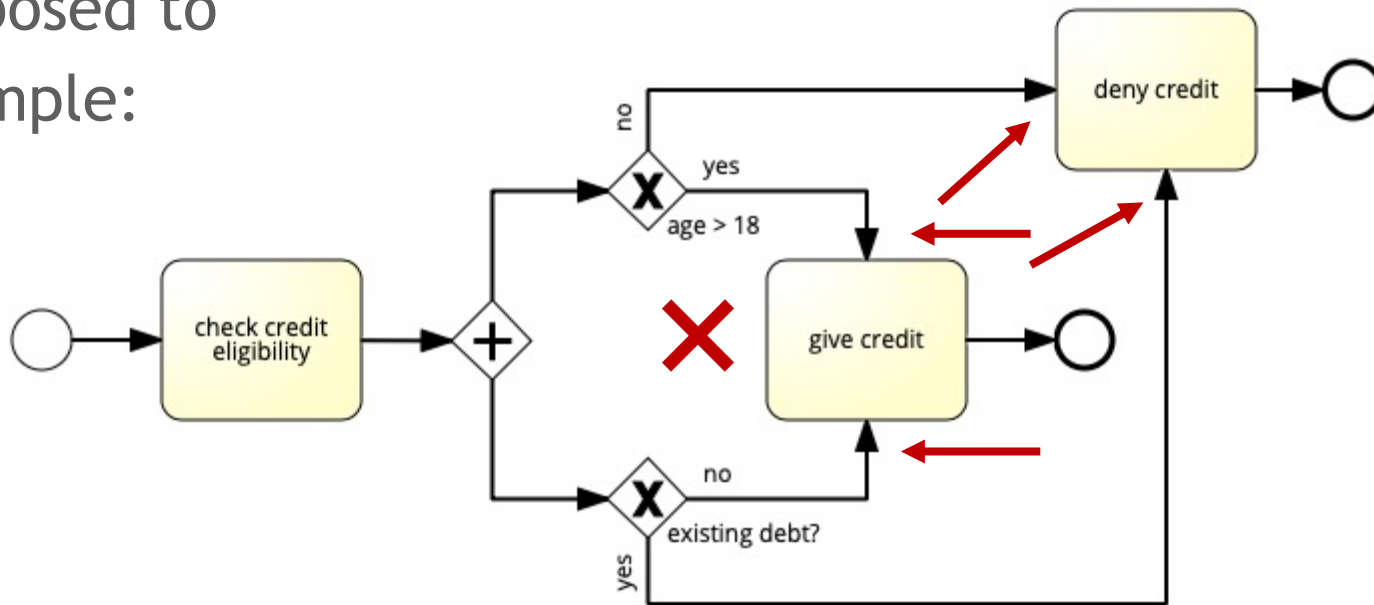
BPMN - INTERMEDIATE EVENTS



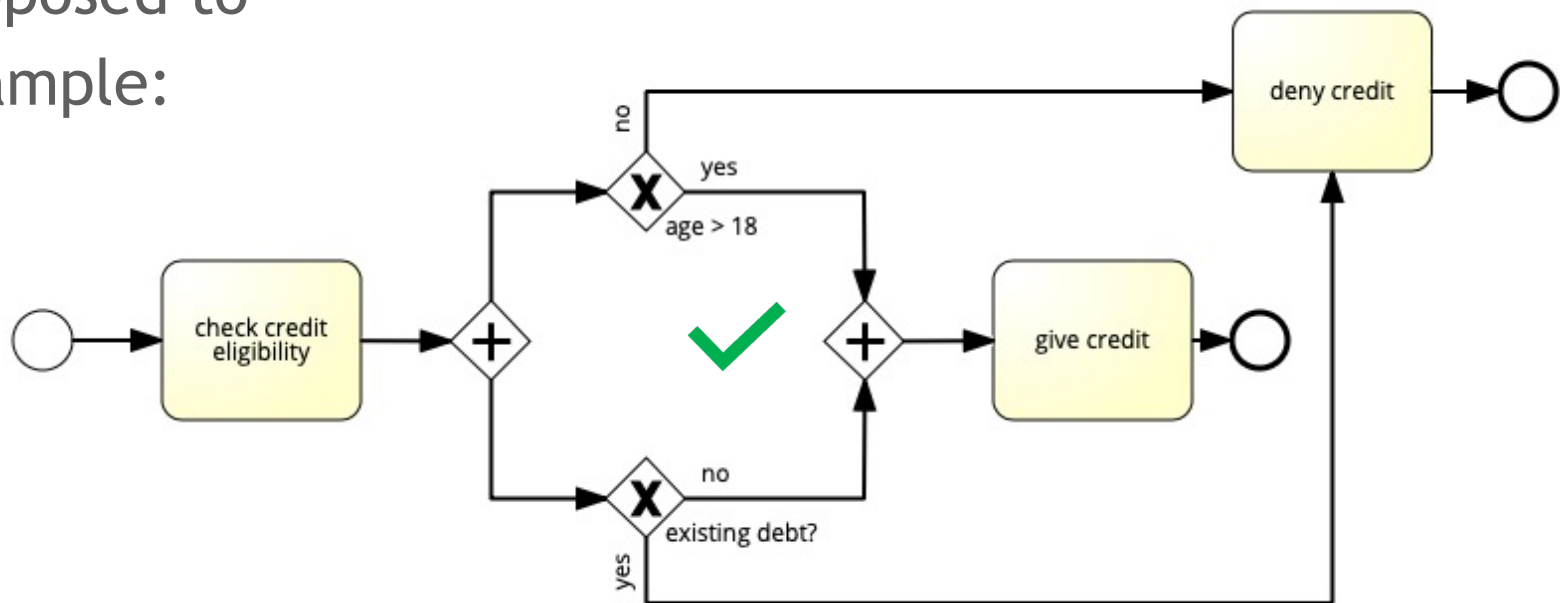
- **Intermediate events** are used **during** a process, i.e., between start and end events



- When multiple paths join or split, gateways specify on what path(s) the token should continue
- Without gateways: Process might not act the way it is supposed to
- Example:



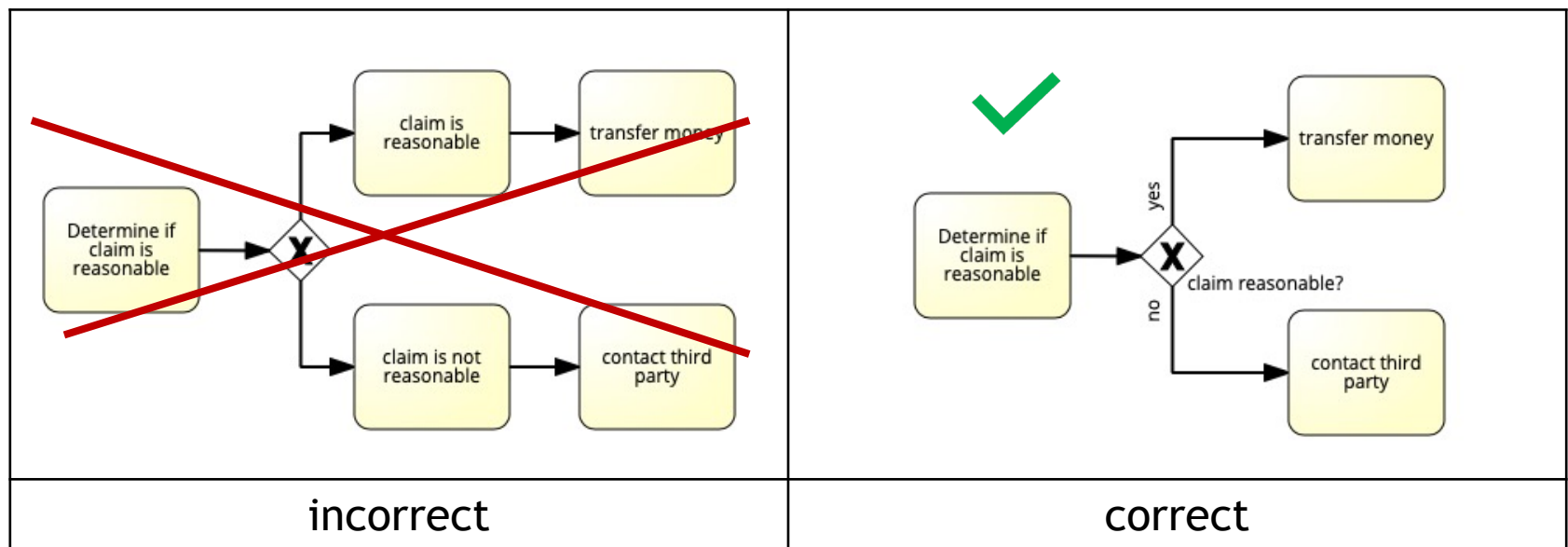
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BPMN - GATEWAYS



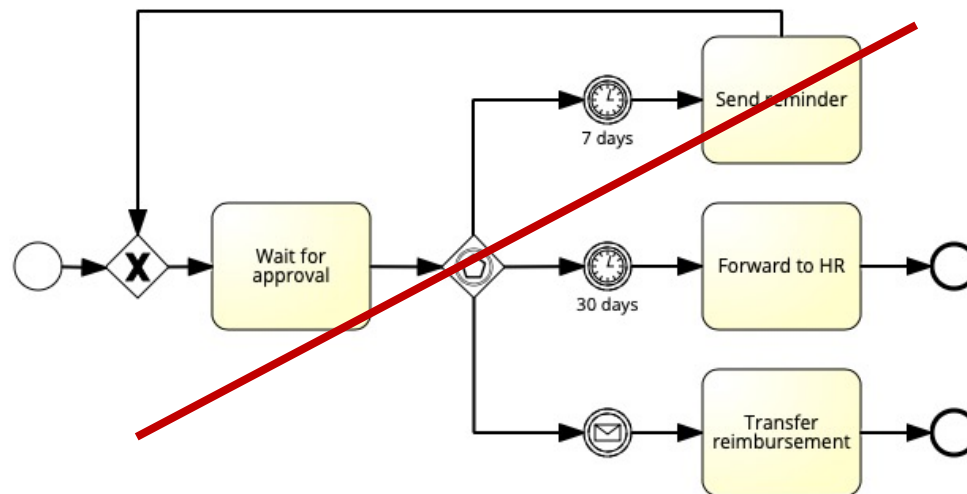
- In order to know which path to follow, gateways and its outgoing paths should be labeled
- Following tasks must not be used to represent states



BPMN - TIMER EVENTS



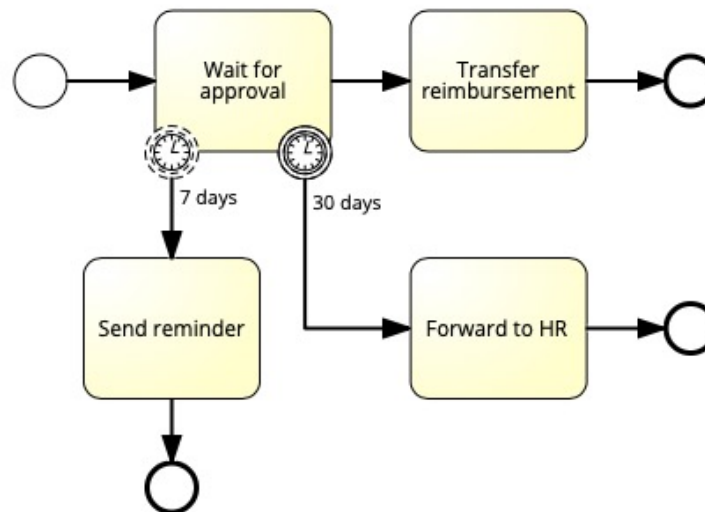
- If the DM takes longer than a week to approve the cost, the DM will be reminded via e-mail. In this case, the employee however keeps waiting for the DM to approve.
- If the DM takes over a month to approve the cost, the case is forward to the human resources department and the process is ended at this point.



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