2. BPMN

2.3 Stilfragen
In the next couple of slides, we will introduce

- BPMN principles of composition
  - e.g. when and how to use black-box pools, labels, message flows, ...
- Elementary rules of usage
  - Rules for start- and end events, pools, sequence flow, ...
Principle #1

- Make the process logic clear from the printed diagram

- The process logic, various end-states, etc. should all be clear from the printed diagram itself
  - That means, you should be labeling essentially everything: subprocesses, events, gateways, message flows, ...
  - Adhere to naming conventions
Principle #2

- Make models hierarchical, fitting each process level on one page

- The top level diagram should both capture the end-to-end process on one page and show its external participants.

- Use subprocesses for hierarchical nesting
Principle #3

- Use black-box pools for external participants

- Customer and other external participants should be modeled as black-box pools (see the diagram on the right)
Principle #4

- Begin customer-facing processes with a message start event receiving a message flow from the customer pool
Principle #5

- Model internal process participants (activity performers) as lanes within a single process pool, not as separate pools. Label lanes with the role or organizational unit that performs its contained activities.

- Representing various organizational units that perform process activities as separate pools (left) is usually incorrect. This would imply that each unit’s process is independent of the others, and can stand alone.

- Instead, use lanes to indicate organizational units (right).
Principle #6

- Label white-box pools with the name of a process; label black-box pools with a participant role or business entity
Principle #7

- Show message flows between the process and all external pools in a top-level diagram, and show message flows consistently in parent and child-level diagrams.

- See next 2 slides for an example.
Example for #7: Top Level Diagram
Example for #7: Expansion ("Order Car from...")
Principle #8

- Label activities VERB-NOUN

- Examples
  - “Check credit” (action), not “Credit check” (function) or “Credit ok” (state)
  - “Approve Loan” (action), not “Loan approval” (function) or “Loan rejected” (state)
  - “Receive report” (action), not “Report received” (state)
Principle #9

If possible, label exclusive decision gateways with a “yes” / “no” question, and label the outgoing sequence flows “yes” and “no”
Principle #10

- Label message start events “Receive X”, where X is the object triggering the process
Principle #11

- Label timer start events to indicate the process schedule
Principle #12

- Indicate success and failed end states of a process with separate end events, and label them to indicate the end state (see below). If multiple paths lead to the same effective end state, route them all to a single end event (see next slide)
Principle #13

- Label message flow with the name of the message. Use a message linked to the message flow to indicate additional detail, if necessary.
Rule #14

- Use start events in a process or subprocess. Use end events to represent the end of each path of a process or subprocess.
Rule #15

- All activities, gateways, and events must be connected via a continuous chain of sequence flows leading from a start event to an end event.
Rule #16

- A sequence flow (or an equivalent link event pair) must not cross a pool boundary. Use message flow to link pools.
Rule #17

- Sequence flow (or equivalent link event pair) must not cross subprocess boundaries from child level to parent level.
Rule #18

- Message flow cannot connect points in the same pool
Rule #19

- Message flow cannot connect a gateway
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