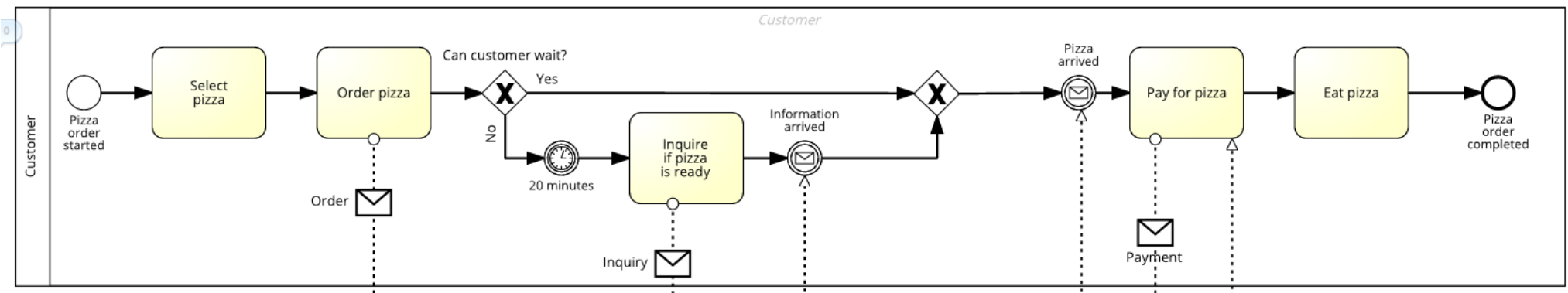# Enterprise Modeling: BPMN
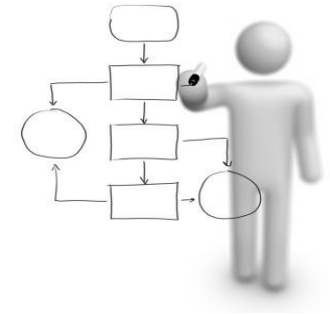
Business Process Modeling and Notation

Prof. Dr. Marcus Birkenkrahe - Berlin School of Economics and Law

Overview
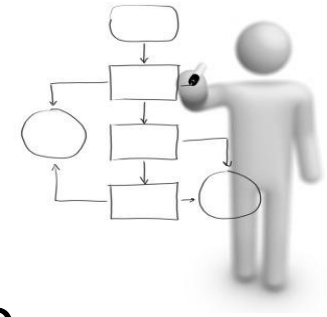
❏ What is BPMN?

❏ Principles

❏ Notation details

❏ Pizza example
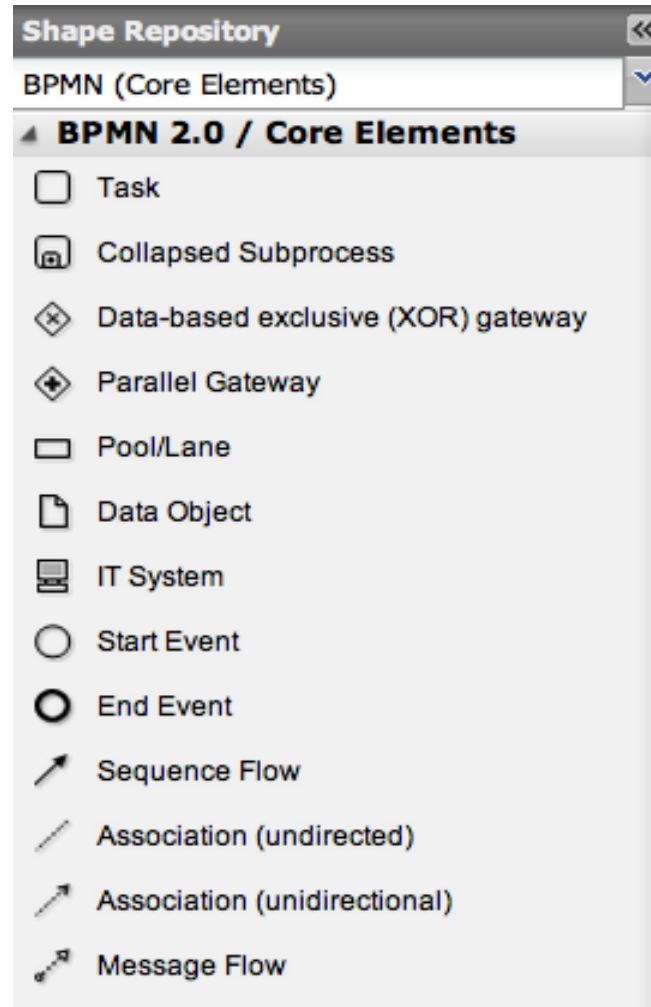
What is BPMN?

- Diagrammatic Best Practice notation to describe business processes

- Properties:

    - Unambiguous (precise semantics)

    - Understandable and expressive

    - Standardized and accepted (Object Modeling Group)

    - Independent of platforms or programming languages

    - Contained in all common modeling tool boxes

    - General and usable along the entire value chain

    - Fairly young (2003)

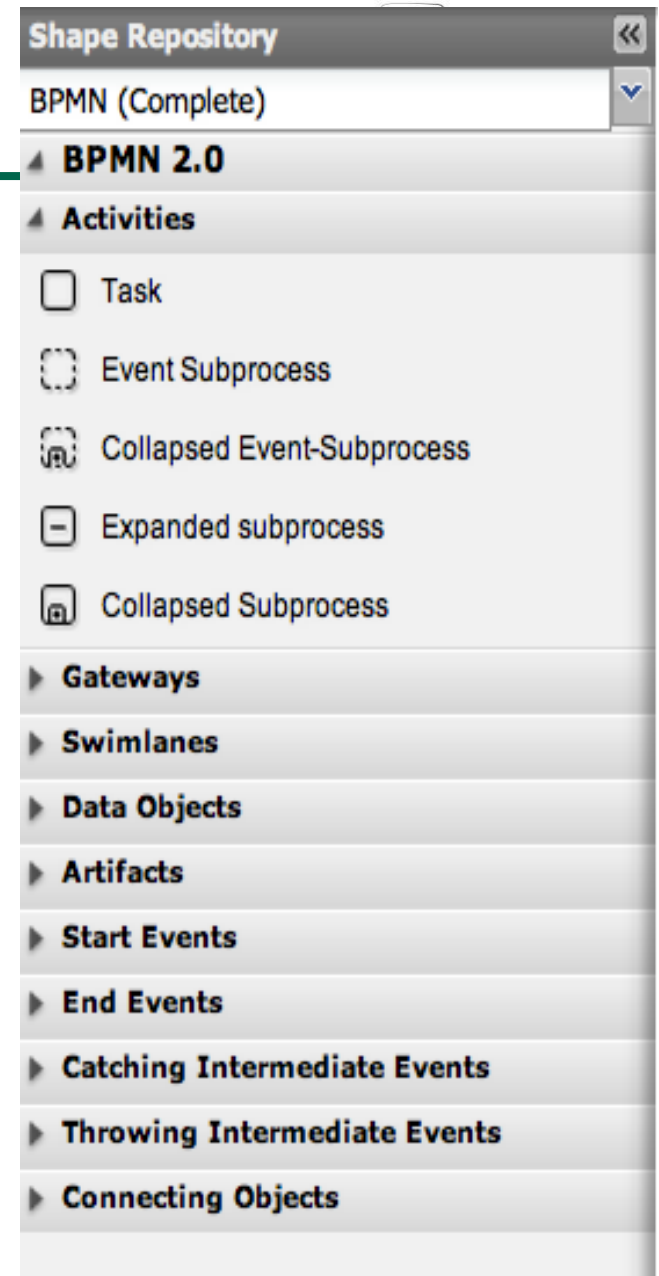   - Can be used to create executable language versions (BPEL)

BPMN Notation (1)

The toolbox:

BPM diagrams are models. Each diagram consists of elements. There is a core set and a complete set. Usually the core set will suffice and will lead to greater clarity.
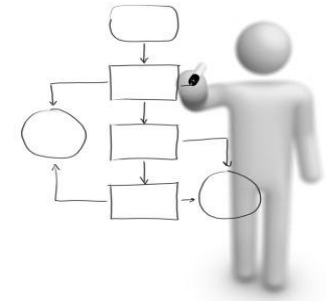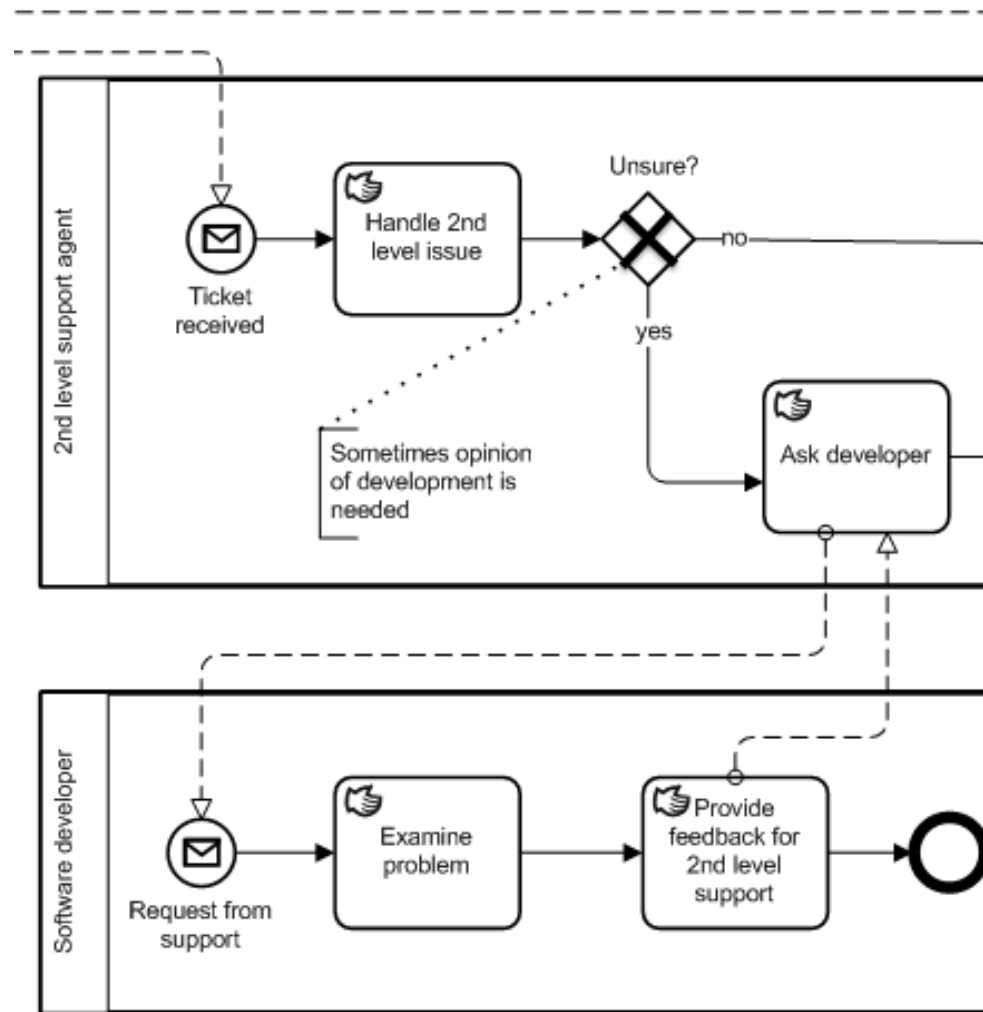

Core Set of BPMN 2.0 elements in Signavio

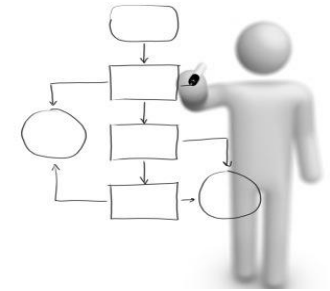Complete Set of BPMN 2.0 elements in Signavio

BPMN Notation (2)

Central elements:

Events (status),
activities (verb),
gateways (operators),
process <u>paths</u>
(sequence *flow*),
similar to an Event-controlled
Process Chain (EPC);
but BPMN is a framework
that does not impose as strict
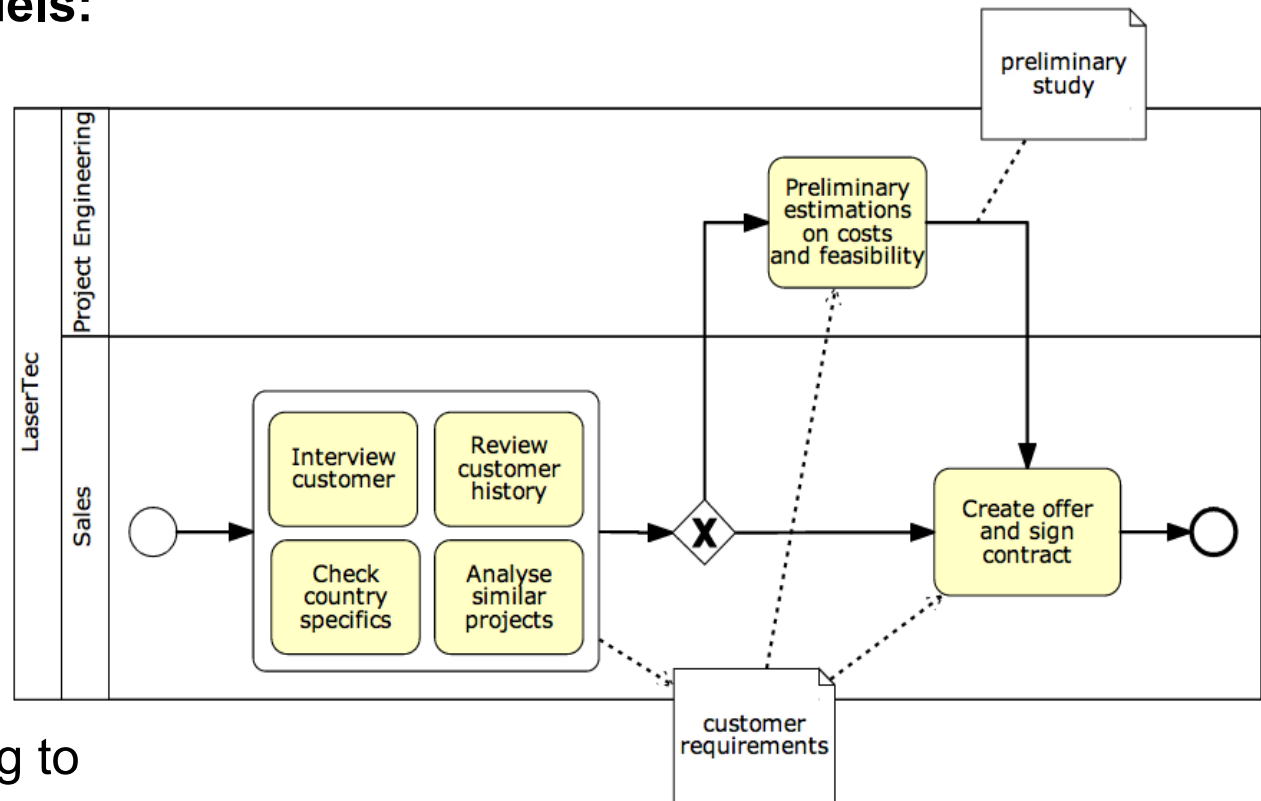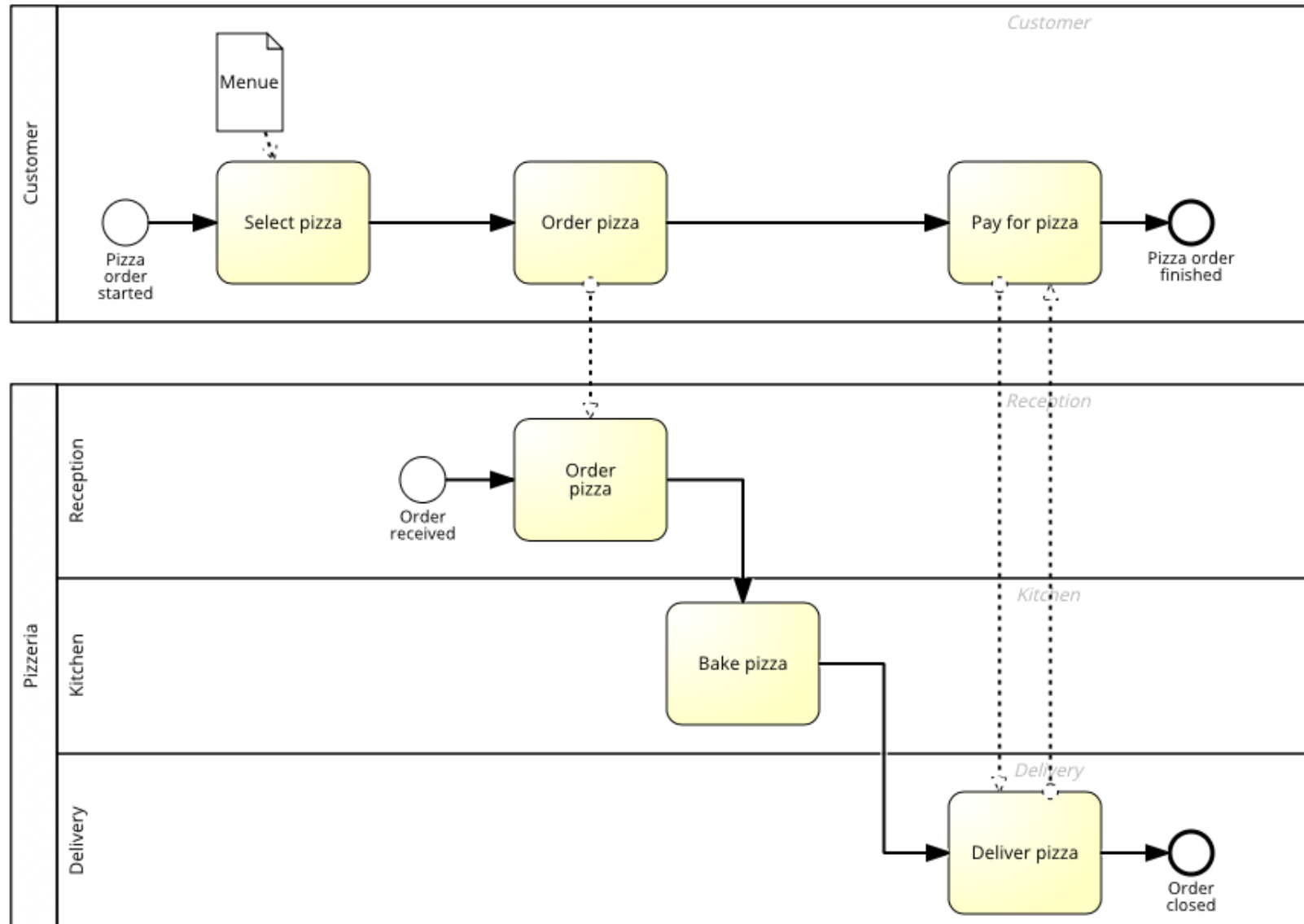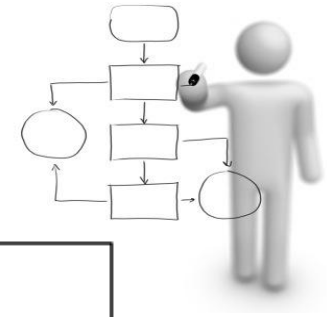conditions on a process
model as EPC.

BPMN Notation (3)

Structure of process models:

Swimlanes (analog to EPC) help to structure processes. There are two basic types: ‚pools‘ and lanes. A pool contains a complete process and can be subdivided in lanes. Lanes contain sequence flow belonging to a particular organizational unit. Between pools only message flows are permitted.
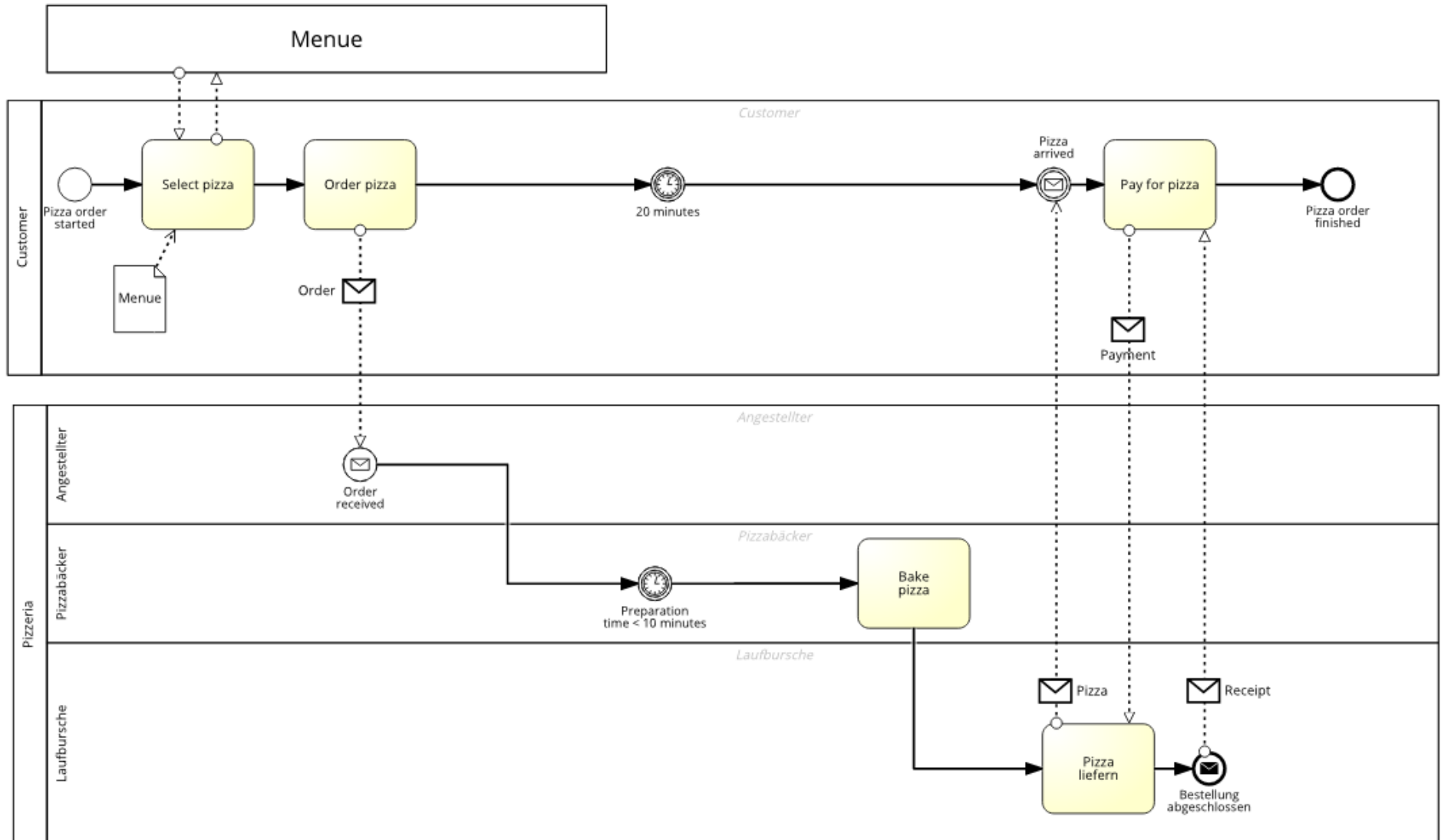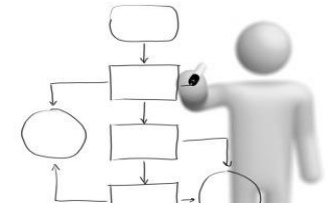

BPMN 2.0 Example (Weske, 2007): Creating an offer by collaboration between sales and project engineering. Full example in Signavio: LaserTec demo example.
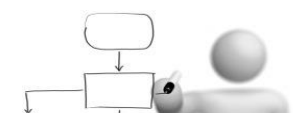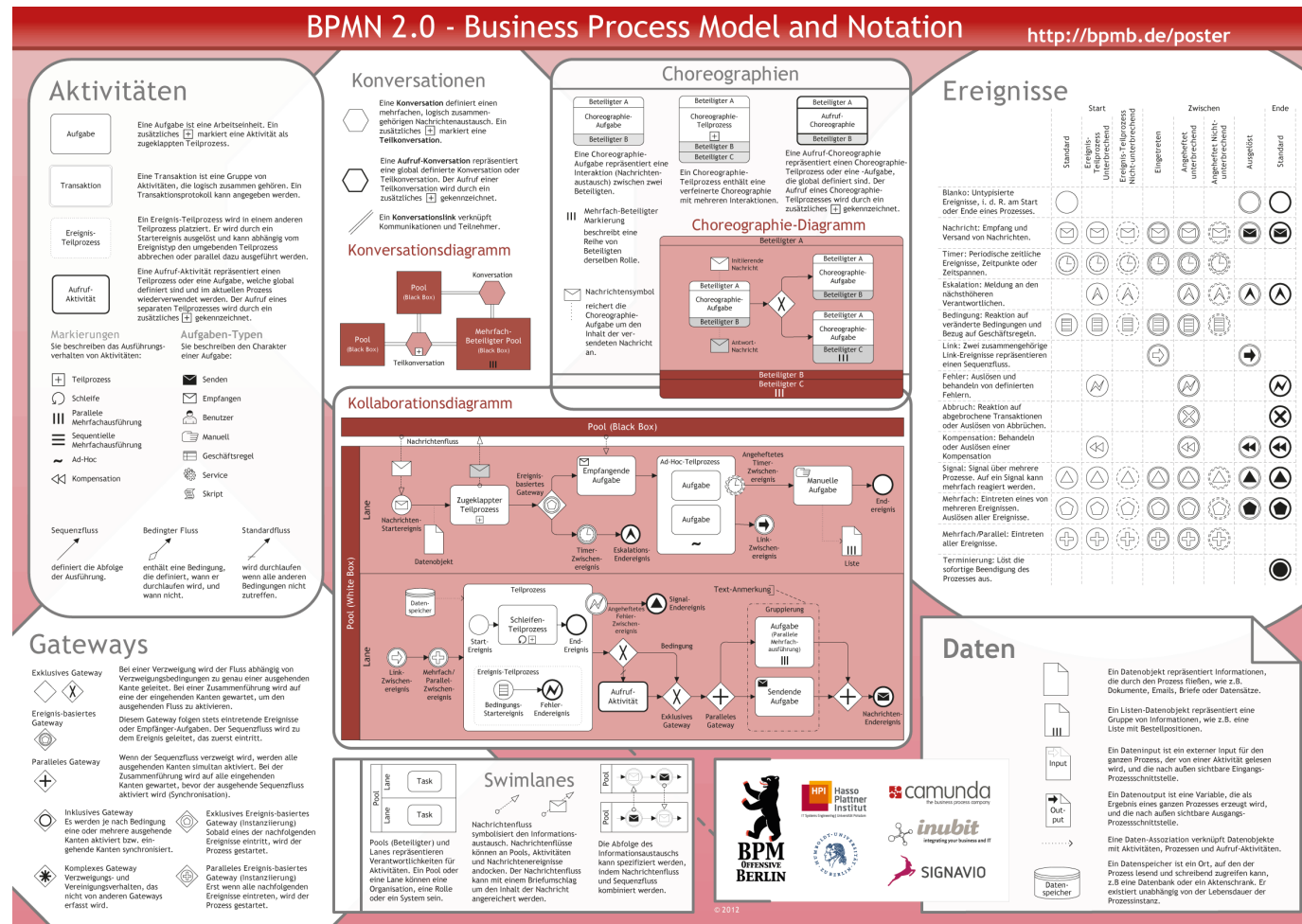
Pizza example: Happy Path (core)
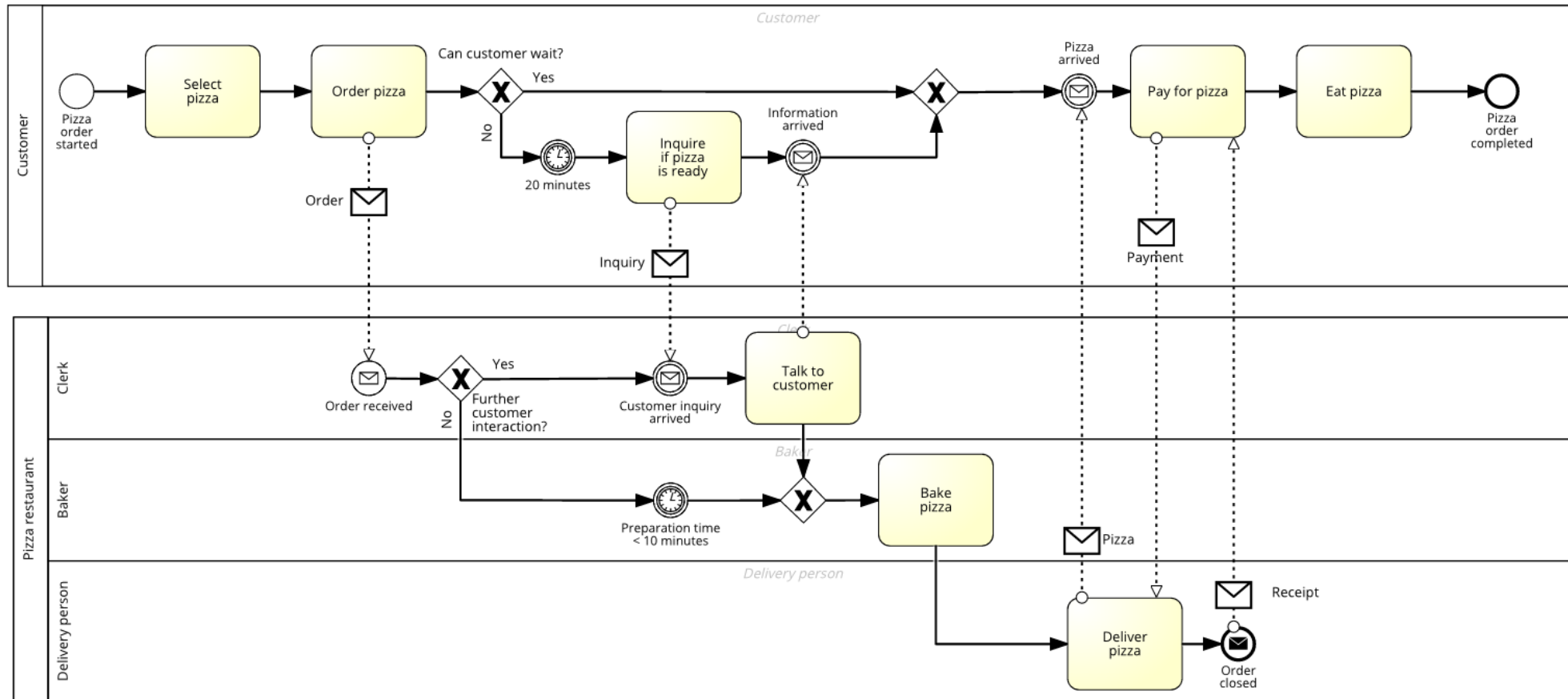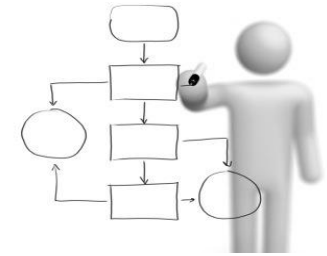
Pizza example: Happy Path (complete)

Menue

Customer

Pizza order started → Select pizza → Order pizza → 20 minutes → Pizza arrived → Pay for pizza → Pizza order finished

Menue

Order

Payment

Pizzeria

Angestellter

Order received

Pizzabäcker

Preparation time < 10 minutes → Bake pizza

Laufbursche

Pizza

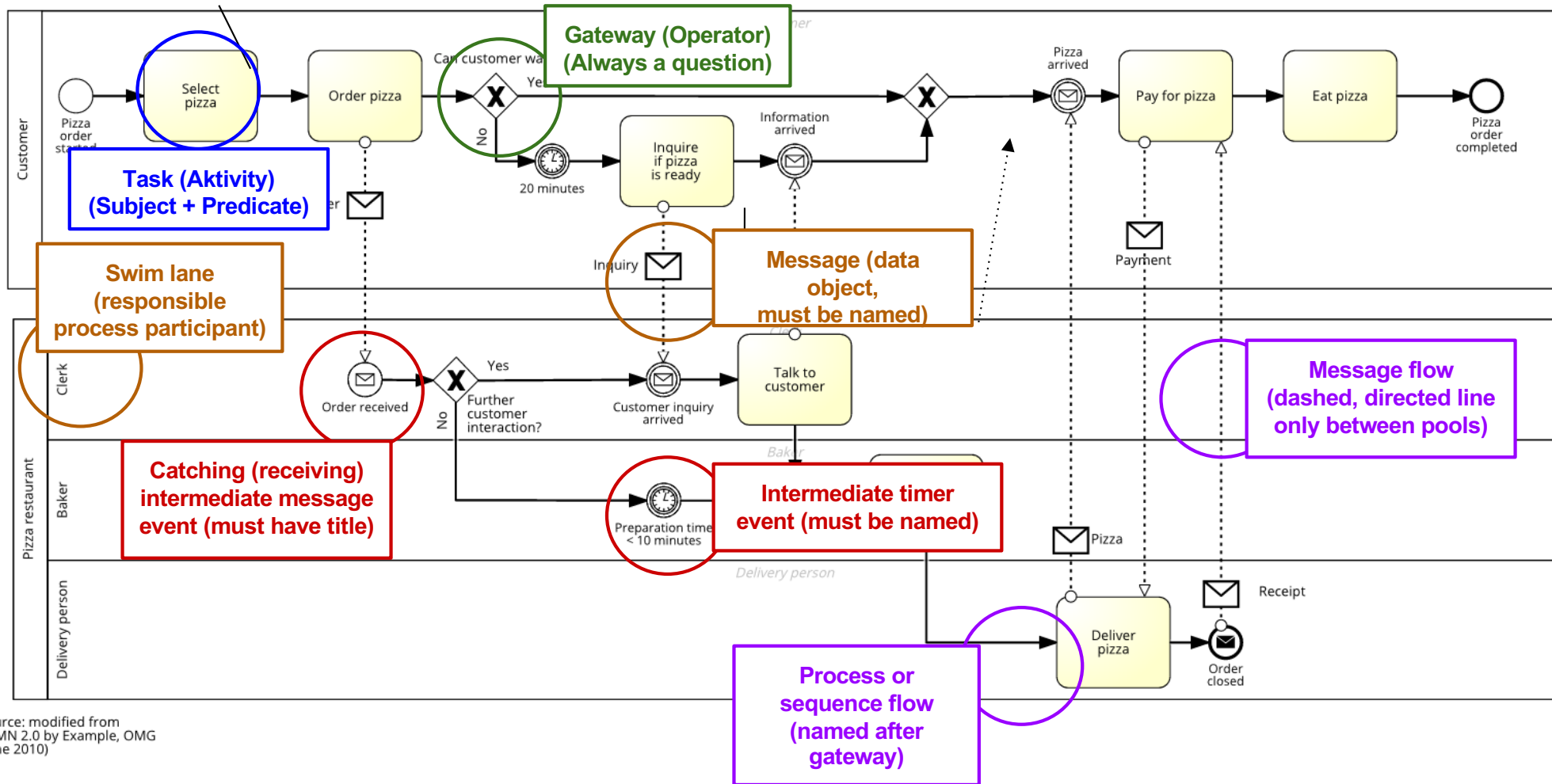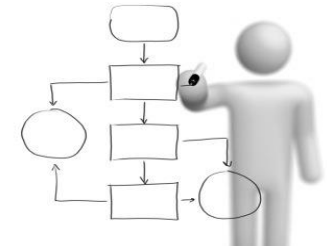Receipt

Pizza liefern → Bestellung abgeschlossen

BPMN Elemente (Xmind)

Pizza example: detailed diagram

Source: modified from BPMN 2.0 by Example, OMG (June 2010)

Which elements can you name?

Source: Modified from BPMN 2.0 By Example, OMG (2010)

Which elements can you name?

Source: Modified from BPMN 2.0 By Example, OMG (2010)

Ready to kick some BPMN butt?