

Organizational chart

Organizations and companies illustrate their structures with organizational charts. With the ARIS symbolism (organizational unit, role and person) relationships between individual units like departments or employees are demonstrated. The relationships stand for:

- Who is responsible for whom?
- Who is the supervisor or inferior?
- How are the communication channels?

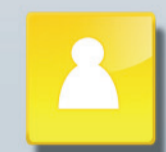
An organization chart quasi indicates important rules of the organization, visible for all and clearly arranged. The management and the employees use the chart as a background for internal and external communication.



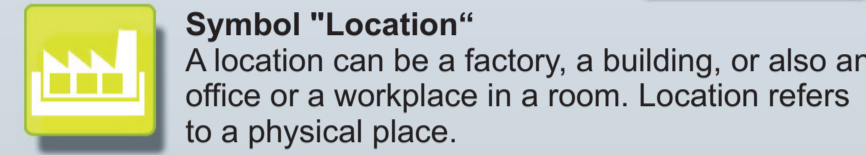
Organizational unit
Unit in an organizational hierarchy, e.g., a department or location. It can be used to show which organizational units are superior to others.



Symbol "Person"
Individual persons can be assigned to an organizational unit.



Groups of persons: "Role"
Groups of persons can be combined in a role. Here, two persons are assigned to one role.



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Business process

A business process is a set of related tasks or activities performed to produce a product or service. A business process consists of events triggering activities. Rules control the flow of the process.

A business process describes

- which activities are performed in the course of a process,
- which organizational units participate in process execution (persons, groups of persons),
- what input and output data are used,
- what IT systems are involved, and
- which events and risks occur during process execution.

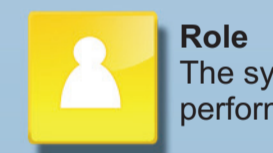
Events define the state or condition that cause an activity to start as well as the state that defines the completion of an activity. The start and end elements of a business process are always events. An event may be the source of several simultaneous activities; on the other hand, an activity may result in several events. To represent these branches and processing loops in a business process, a rule is used.



Event
This symbol represents an event that triggers activities.



Activities
Activities describe what happens during a process, i.e., what exactly is done. They are the core elements of a process.



Role
The symbol "Role" illustrates who is performing an activity.



IT systems
Activities can be performed manually or automatically. Automated activities are performed by IT systems.



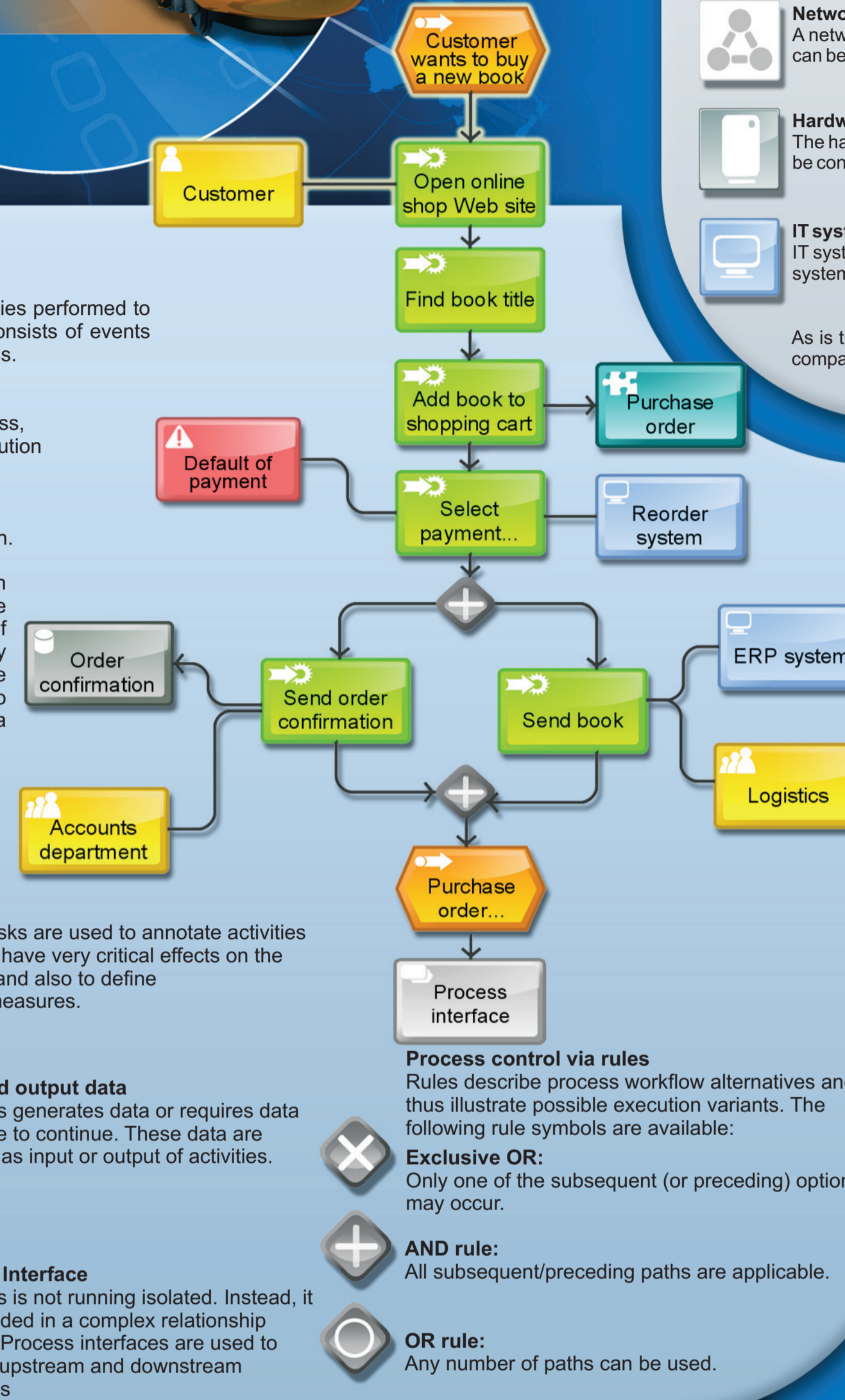
Risks
Risks are used to annotate activities that may have very critical effects on the process, i.e., what exactly is done. They are the core elements of a process.



Input and output data
A process generates data or requires data to be able to continue. These data are modeled as input or output of activities.



Process interface
A process is not running isolated. Instead, it is embedded in a complex relationship network. Process interfaces are used to illustrate upstream and downstream processes



IT Infrastructure

An IT infrastructure diagram is used to model the technical communication infrastructure of a company. IT systems and belonging hardware systems are connected by networks using different network devices.

An IT infrastructure describes

- which software systems are running on which hardware,
- in which network the hardware is located,
- which network devices (switches, routers, firewalls) are used for interlinking existing networks.

Thus, this model type can be used for planning and documenting network infrastructures

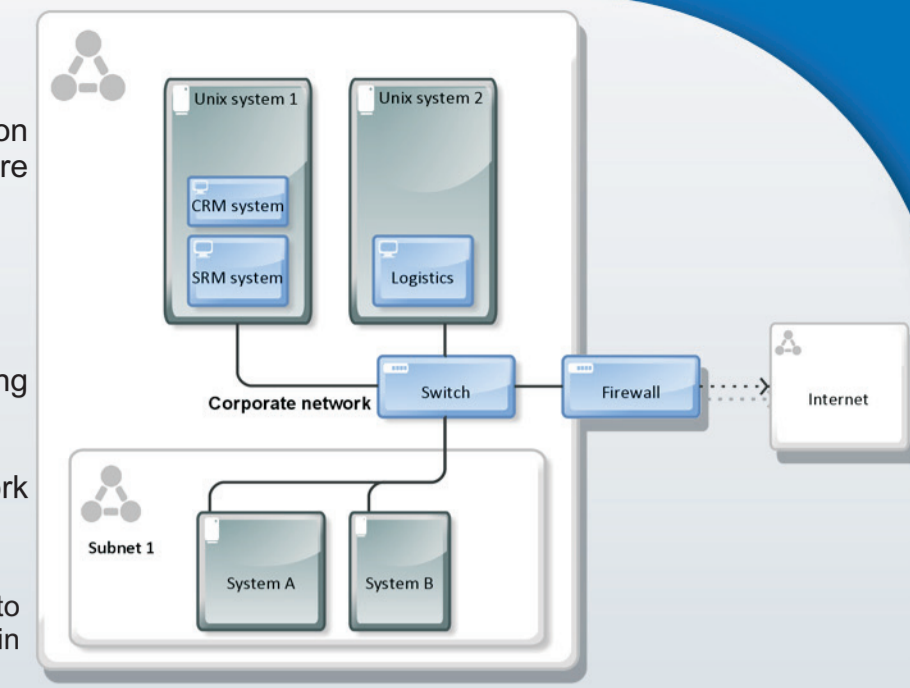
Network components
Network components can be assigned to each network. This enables you to immediately identify technological restrictions that arise from the selection of a certain network for a company.

Network
A network represents a typification of individual network specimens that are based on exactly the same technology. Networks can be connected to each other and can be arranged hierarchically as logical constructs.

Hardware
The hardware can, on the one hand, be network hardware for implementing the defined network structures or hardware that can be connected to networks.

IT system
IT systems represent logical electronic data processing systems. These systems are not hardware but software systems. ERP systems and EAI platforms can be named as examples

As is the case with networks, hardware are also not individual hardware specimens that can, e.g., be identified by inventory numbers of the company, but are typifications that are based on the same technology. Hardware may be arranged in any required hierarchy.



Data model

A data model represents the data view of a company, e.g. which business objects exist. The entity relationship notation is used for data modeling. Data models are created e.g. to define database structures.



Entity
An entity is an individually identifiable object of reality. In databases, it is represented as a table.



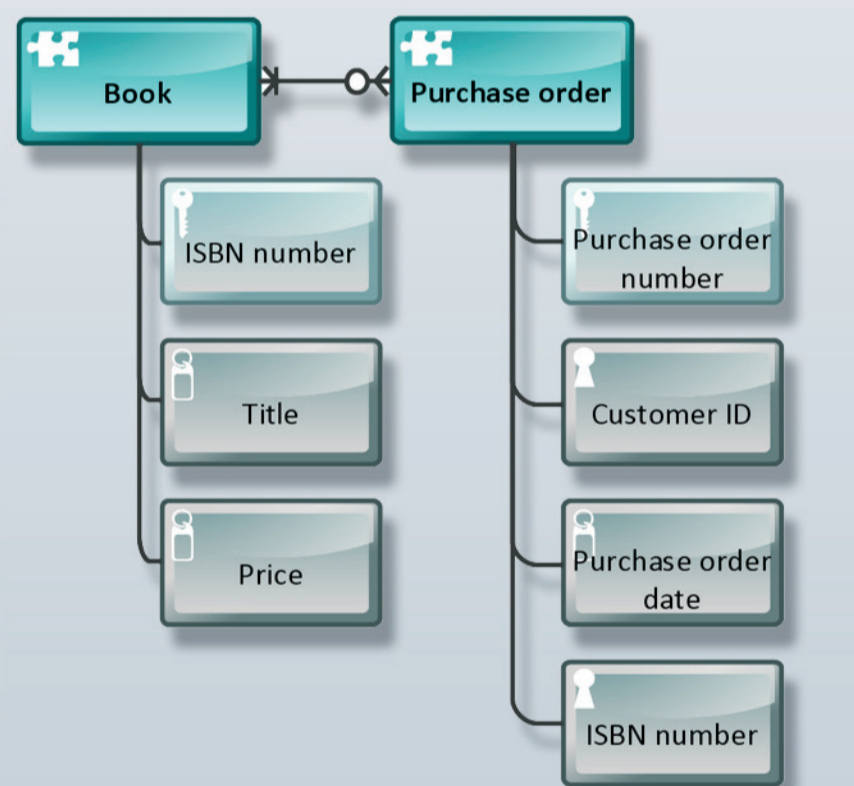
Primary key
The primary key (here: purchase order number) is a unique identifier for an object.



Attributes
Attributes describe properties of a data object (entity), i.e. the columns of a table.



Foreign key
The foreign key is a reference to the primary key of another data object. For example, the customer ID is a reference to a data object of the "Customer" type.



The cardinalities of relationships between entities illustrate the number of interconnections.

In the example, a purchase order may include any number of books (at least one), which is shown by the connection end symbol at the "Book" object.

A book, in turn, is assigned to any number of purchase orders (or none), which is shown by the zero at the "Purchase order" object.

Cardinalities are set via relationship attributes (main menu: View > Attributes).

System landscape

System landscapes represent the implementation options of functions and objectives via IT systems.

The model shows the modular structure of IT systems and the technological properties (operating systems, user interfaces or database management systems) upon which an IT system is based. IT systems are considered here at type level. IT systems that are based on exactly the same technology are therefore combined.

System landscapes describe which IT systems belong to which logical units (domains).

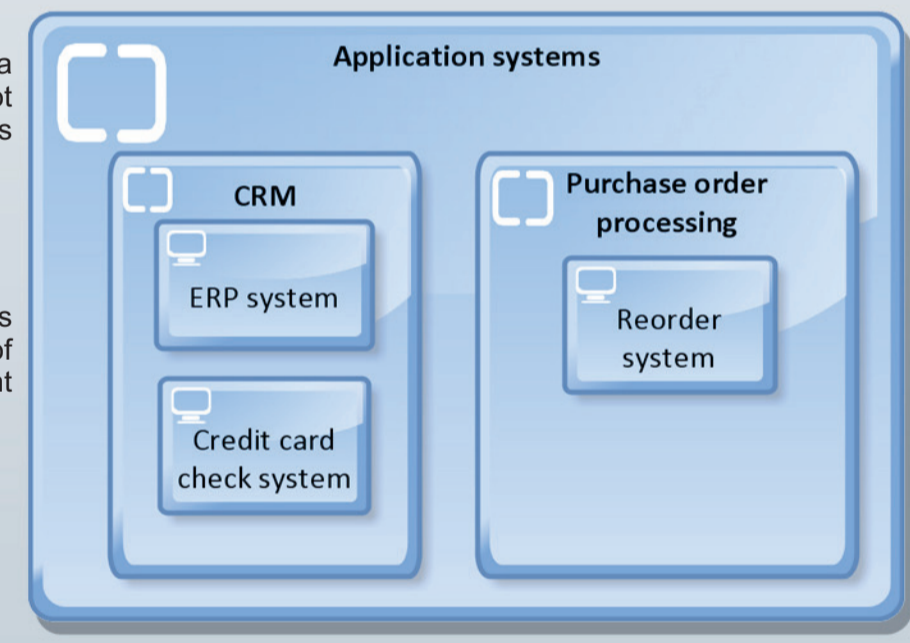
This assignment information is relevant for budgeting or for defining administrative responsibilities.



IT system
IT systems represent logical electronic data processing systems. These systems are not hardware but software systems. ERP systems and EAI platforms can be named as examples.



Domain
IT systems can be grouped into areas (application domains). In doing so, the question of similarity can be defined according to different classification criteria.



BPMN Diagram

BPMN is a process notation used to model business and workflow processes alike. BPMN is maintained by OMG. ARIS Express supports modeling of BPMN 2 collaboration diagrams.

The BPMN collaboration diagram is used to model the interactions between participants, e.g. in a business-2-business (B2B) context. Participants are involved in the process and represented by means of pools. Interactions between these pools are represented by message flows (message exchanges).

Start events
Start events may use different symbols in BPMN. For example, "Message event" for processes starting with a message, or "Timer event" for processes to be started at a specific point in time.

End events
These symbols mark the end of a process. You can also provide information on the process end, for example send a message.

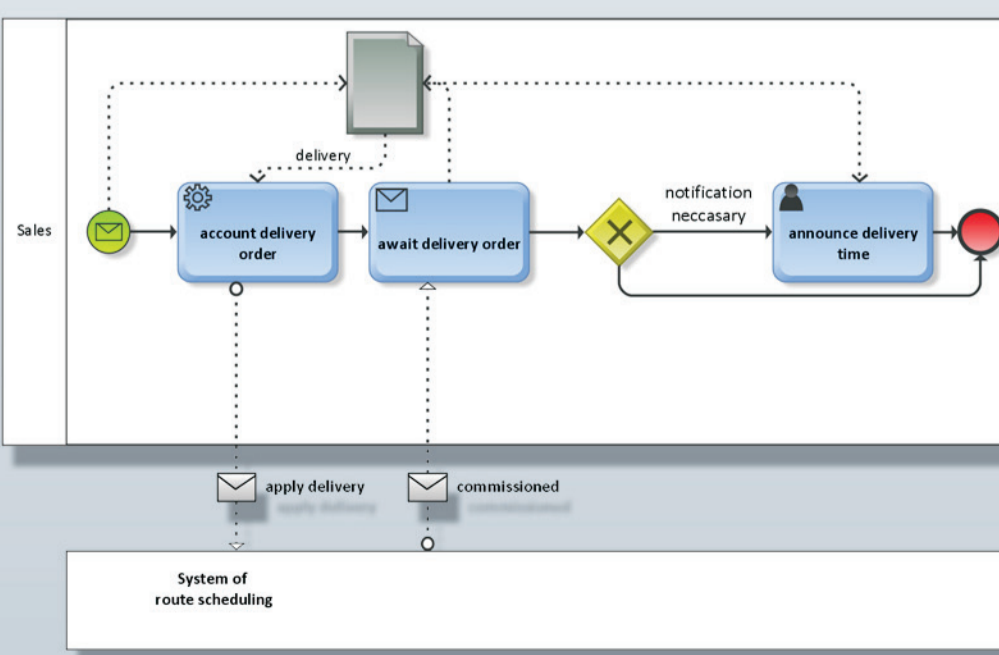
Intermediate events
This event type is used within the process flow only; it is not used as a start or end event.

Gateways
They represent decisions within the process flow. Using the corresponding symbol, they represent parallel, exclusive, or other execution modes

Task
In BPMN, tasks are represented by activities. They cover the human ("User task" or "Manual task") or technical execution of tasks. As "Subprocesses" they represent basic processes.

Pools and lanes
These represent organizational units. Using pools or embedded lanes tasks can be assigned to persons or groups of persons.

Text annotations
They are used to add comments to model elements



Attributes

The following attributes can be maintained:

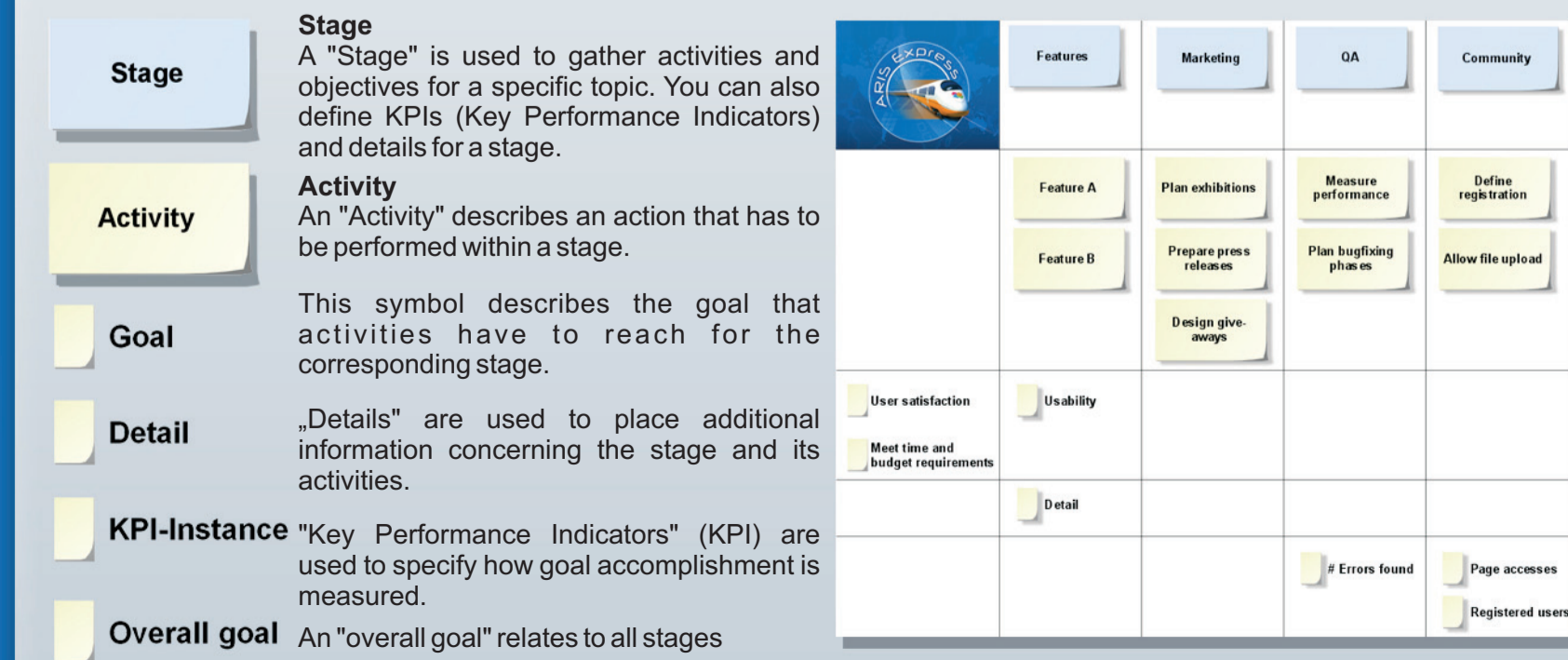
- Name
- Description/Definition
- Author
- Link
- Multi-instance participant (BPMN diagram only)
- Compensation activity (BPMN diagram only)

- Loop type (BPMN diagram only)
- Telephone number (Organizational chart only)
- E-mail address (Organizational chart only)
- Address (Organizational chart only)

Whiteboard

A whiteboard model is used to record ideas and tasks and structure them the way you would do on a physical flip chart using post-it notes. A whiteboard can be created as result of a brainstorming session.

The example describes the result of a brainstorming session during which ideas concerning a product - in this case ARIS Express - are gathered.



Process landscape

A process landscape is used to structure the process portfolio of a company. Processes in a process landscape can be connected in a sequence to describe an end-to-end scenario or a value chain. Processes can be arranged hierarchically to further refine certain process areas.

The process portfolio is usually structured into the following three process types:

- management processes (e.g. strategy)
- core processes (i.e. value-adding processes)
- support processes (e.g. marketing)



Process
This symbol represents a process that can be described, e.g. by using a "Business process" diagram.

