BUSINESS ORGANISATION MODELS

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Literature

This chapter is mainly based on the following literature:

■ Bridgeland David M.; Zahavi, Ron (2009): Business Modeling - A Practical Guide to Realizing Business Value. Morgan Kaufman Publishers. Chapter 4
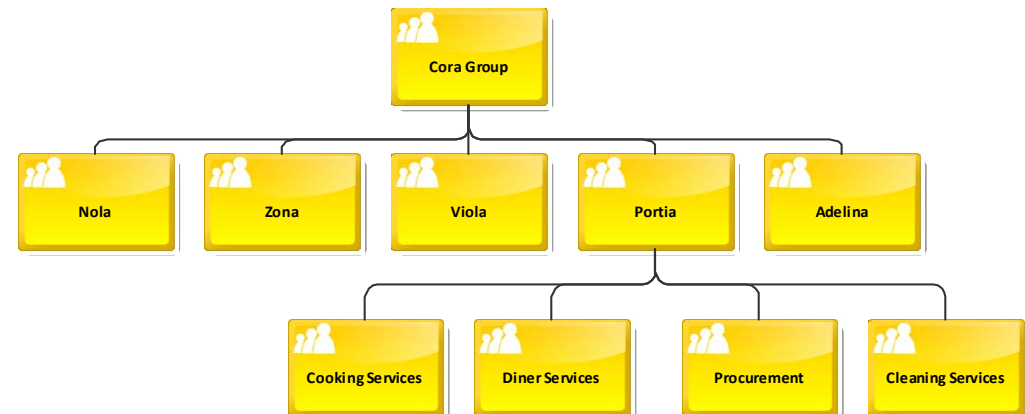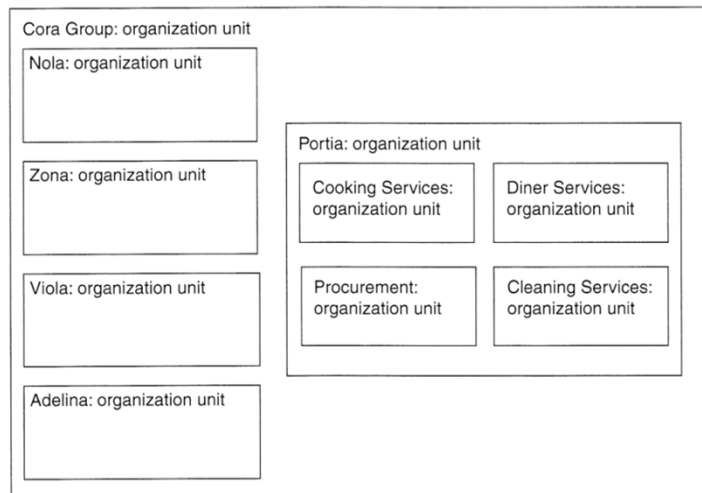
Business Organisation Models

■ A Business Organisation Model describes

♦ how a company is organized – the business units, departments and working groups

♦ the roles that people play in the company

♦ the interactions – who interacts with whom to get the work done

♦ the way the organisation interacts with other organisations

■ Business Organisation models do not focus on how organisations perform their work (this is modeled as a business process)

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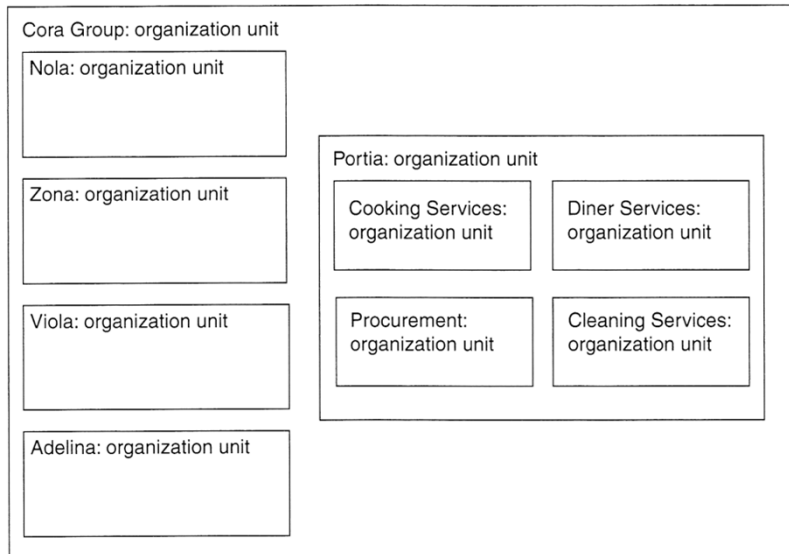Business Architecture - Organisation Models

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Business Organisation Modeling

- There is no standard for organisation modeling
  - ♦ nearly every modeling tool has its own approach
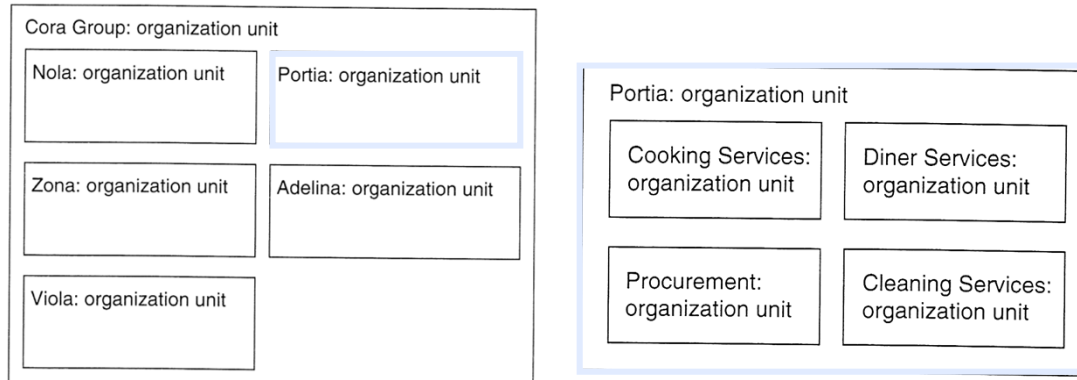- Here are two possible representations of an hierarchical organisation unit

- Each organisation has a name and a description
  - ♦ The description contains details about the purpose of the organisation and the function it performs

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Organisations and Suborganisations

- Business organisation models are inherently hierarchical
  - ♦ An organisation is composed of several other organisation which are again composed of other organisation

- The hierarchy can be represented
  - ♦ in one model or
 - ♦ in several models

(Bridgeland & Zahavi 2009, p. 81ff)

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Organisation with Roles

- Organisations contain roles

- A role is a responsibility a person assumes when he or she holds a position in an organisation

- People can at the same time play multipe roles

Organisation Model with roles
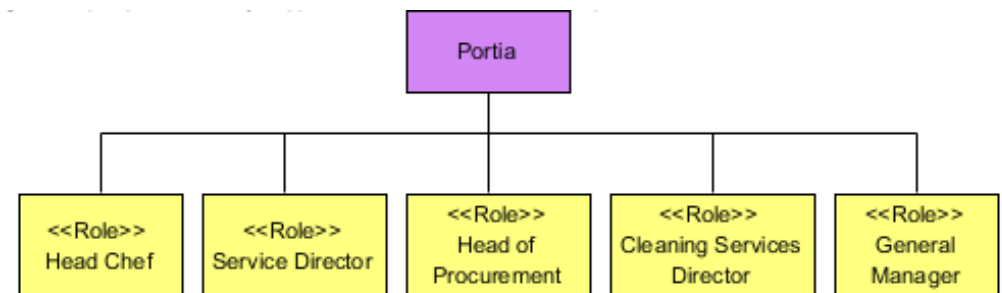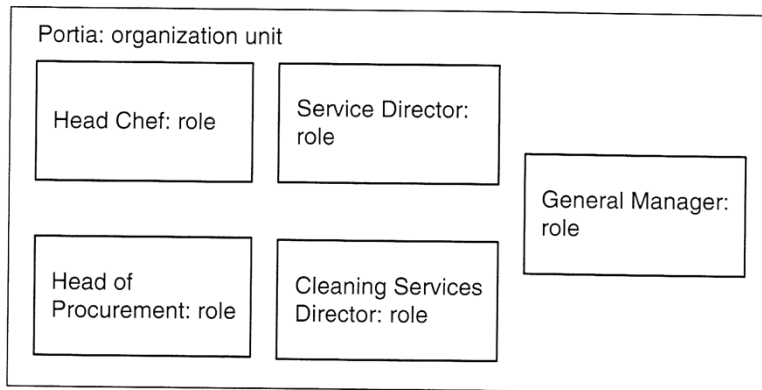
Reporting Relationships

■ It can be useful to model the reporting relationships that exist between roles (not supported by many modeling tools)

■ The supervising role can tell the reporting role what to do and when to do it

■ Reporting only occurs between two roles, a role cannot report to an organisation

Organisation Model with reporting relationships

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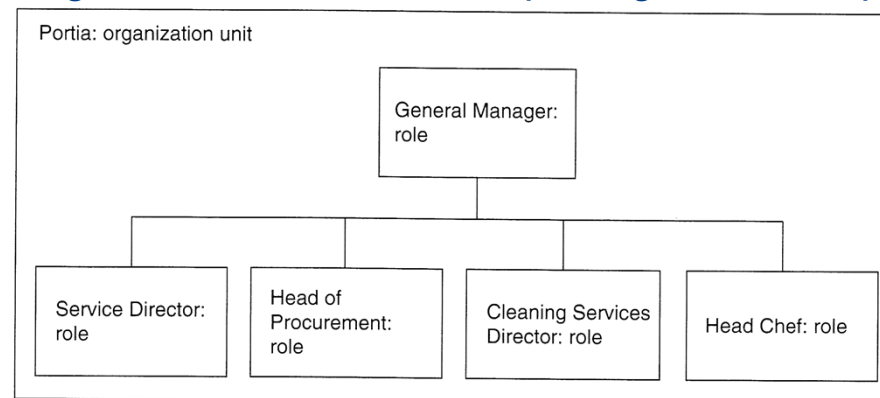
External Organisations and External Roles

Sometimes it can make sense to model also external roles

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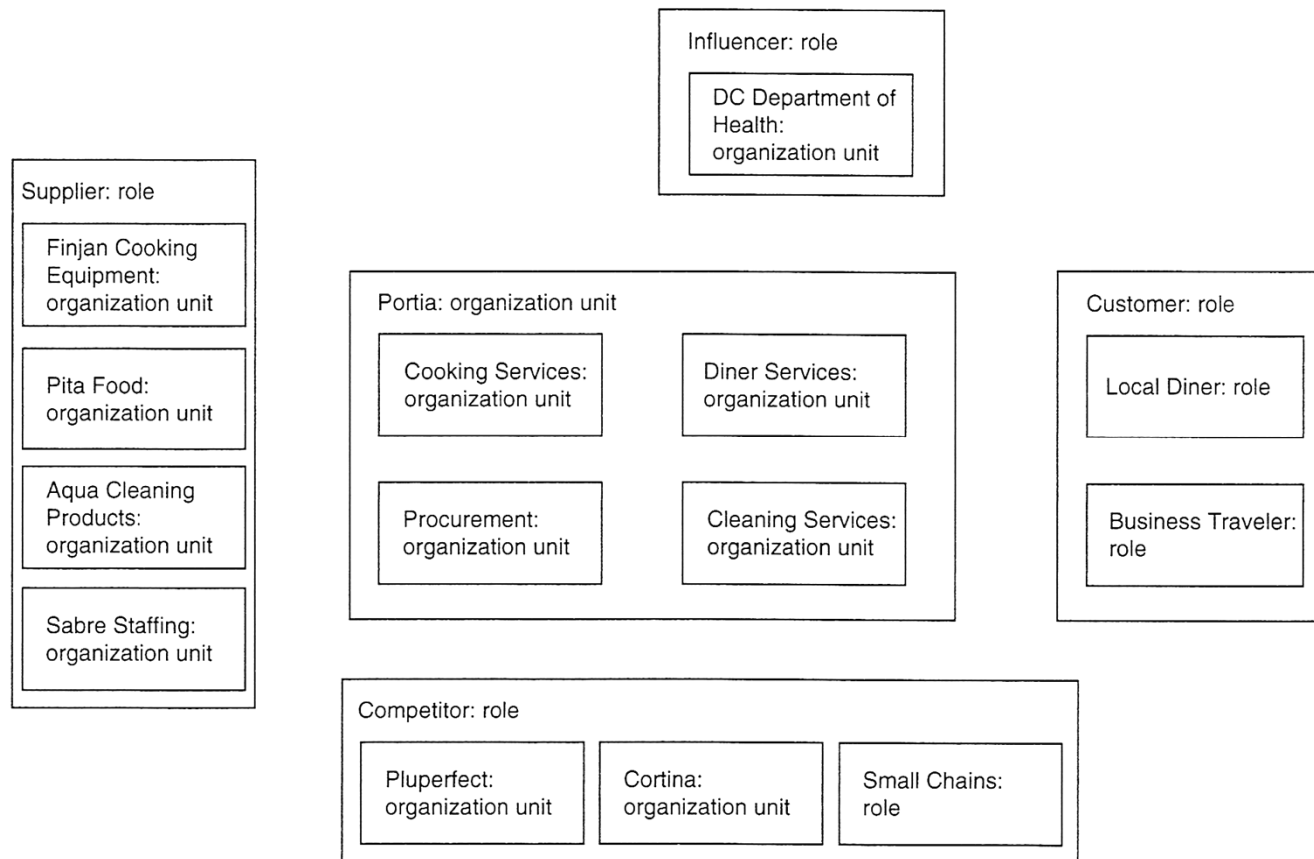
Interactions

- Interactions shows who works with whom
- An interaction is represented as an arrow between organisations and roles
- An interaction is labeled with the name of the deliverable, which can be information, aphysical good, a service or money
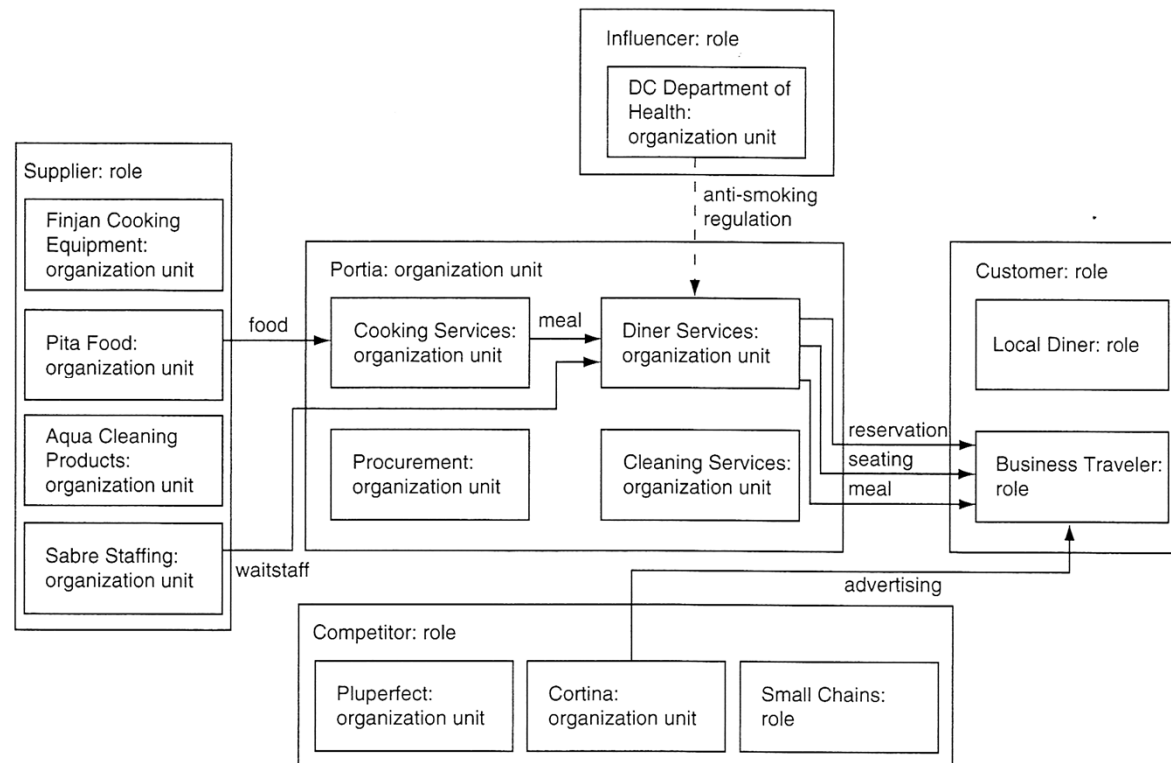
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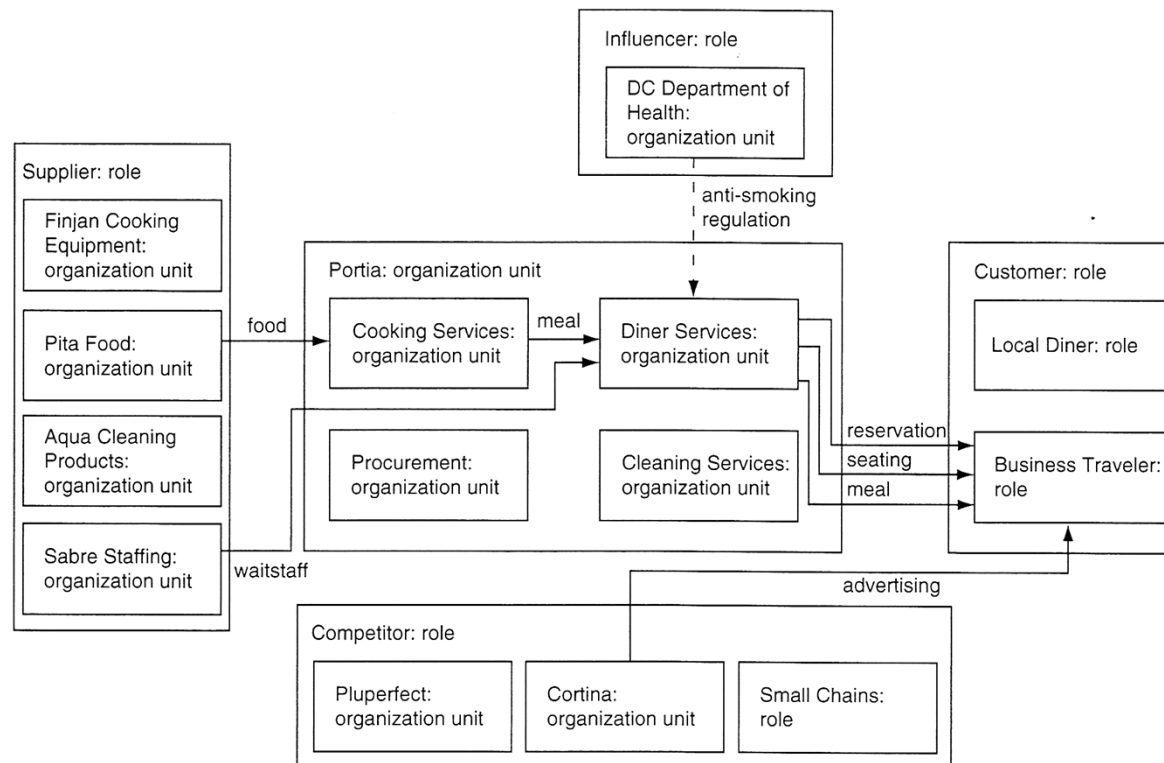
Influences

- An organisation can have an influence on another organisation, even if they do not work together

- Influence is similar to interaction, but influence is indirect

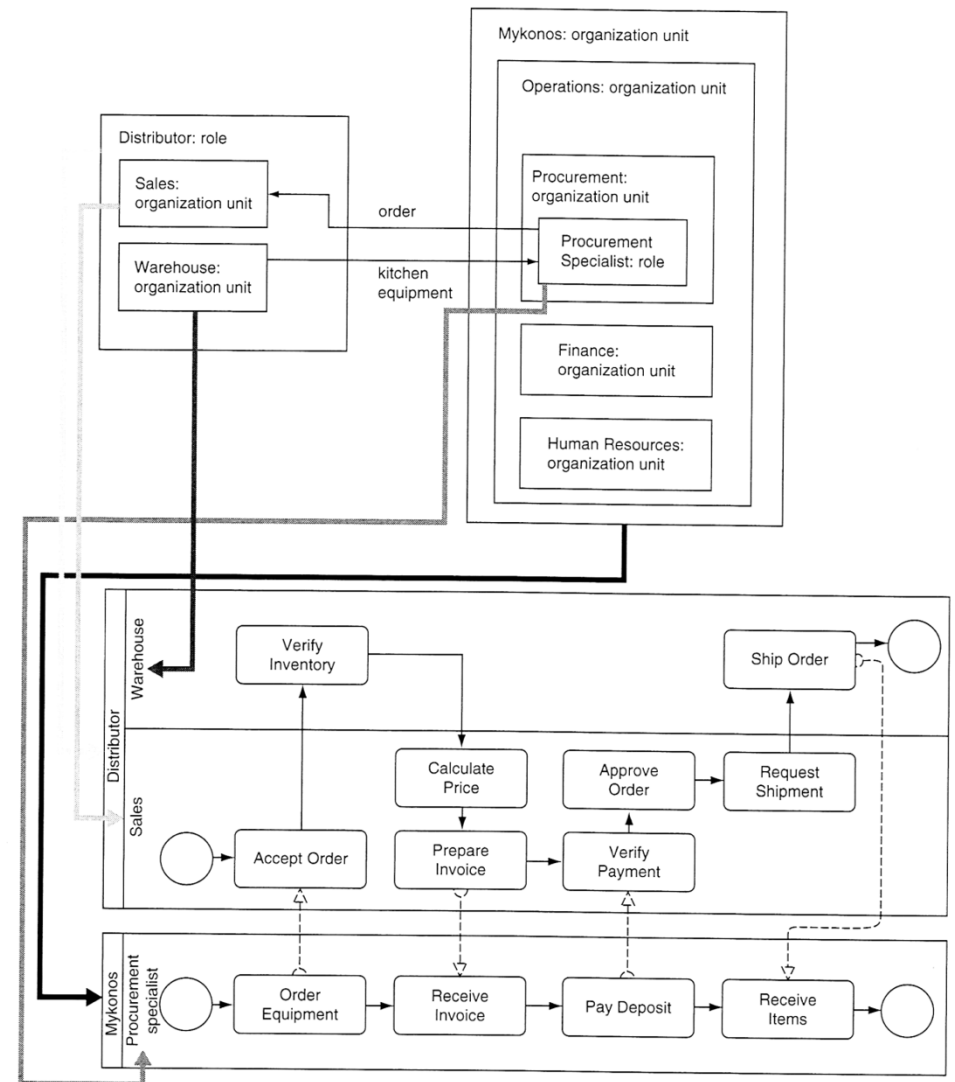- In the example the anto-smoking regulation of the DC Department of Health influer

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- A pool contains a process
  - ◆ The pool is labeled with the participant who manages this process

- A lane in a process model is labeled with the participant who performs the action
  - ◆ an role or organisation in the pool

- Interactions to external roles/organisations are modeled as message flows in a process

(Bridgeland & Zahavi 2009, p. 130f)

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INTERACTION MODELS IN BPMN 2.0

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These slides are based on:

■ White, S.A. and Bock, C. (2011): New Capabilities for Process Interaction in BPMN 2.0. In: Fischer, L. (ed.): BPMN 2.0 Handbook, Future Strategies Inc.
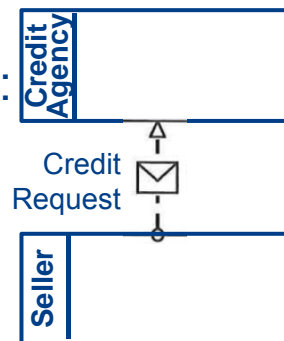
Interaction Models

- Interaction models are new in BPMN 2.0

- They allow to model B2B cooperations

- Business services are characterized by interactions between businesses and their customers and partners

  - They are usually agreed or assumed ahead of time, and do not detail the internal activities of the participants.

  - Agreements determine what information, goods, or personnel are needed by whom and at what time, how complaints and unusual situations are handled, and so on.

  - The interactions might be very short from start to end, or take place over a long period.

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Interaction Diagrams

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Collaboration
(between pools):

Credit Agency

Credit
Request ✉

Seller

Choreography:

Credit Agency

Request Credit
Score

Seller

Credit
Request ✉

Two diagrams for interactions:

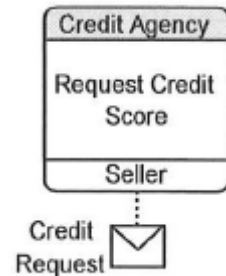- ♦ Collaboration (already BPMN 1.x)
- ♦ Choreography

Common elements of interaction diagrams:

- ■ Participants are the interacting agents
  - ♦ Businesses, departments, people, IT

- ■ Messages are sent between Participants
  - ♦ These can be informational or physical, including physical things that do not carry information, such as cars or furniture.

- ■ Messages Flows occur at certain points during the interaction, between Participants.
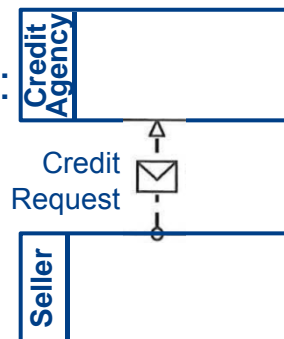 - ♦ The same Message can be carried by more than one Message Flow.

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Interaction Diagrams

Choreography:

Collaboration
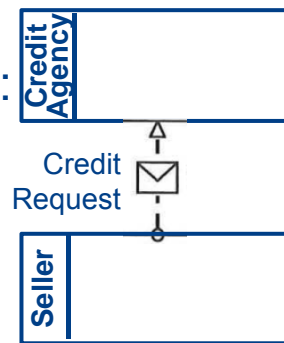(between pools):

- Choreography diagrams
  - ♦ show participants as bands inside a rounded rectangle, called a Choreography Activity.

- Collaboration diagrams
  - ♦ show participants more prominently than Choreography.
  - ♦ They are useful when relationships between Participants are the primary concern.

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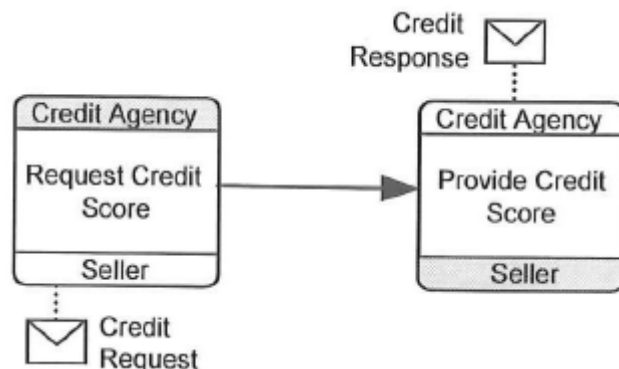Business Architecture - Interaction Models

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Messages in Interaction Diagrams
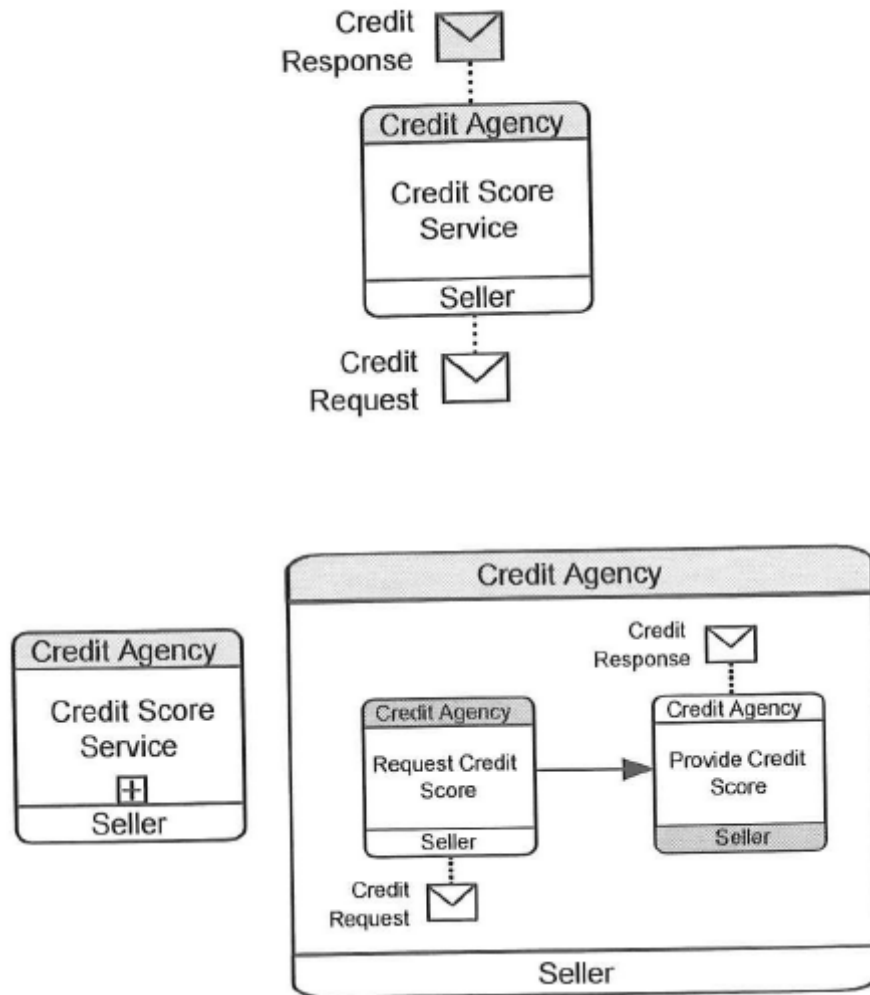
Collaboration
(between pools):

Choreography:

- Messages are shown as envelopes on both interaction diagrams

- In Collaboration diagrams Message Flows appear as dashed arrows with Messages optionally overlaid on them.

- In Choreography, Message Flows are shown as Choreography Activities, with Messages linked to them by dotted lines called Associations.
  - ♦ unshaded bands of Choreography Activities are Participants sending the Message
  - ♦ shaded bands are the ones receiving them.

- There can be sequences of Message Flows in Choreography

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Grouping Message Flow

■ Choreography diagrams can represent multiple Message Flows

■ The above Interaction has two Message Flows without explicit sequencing

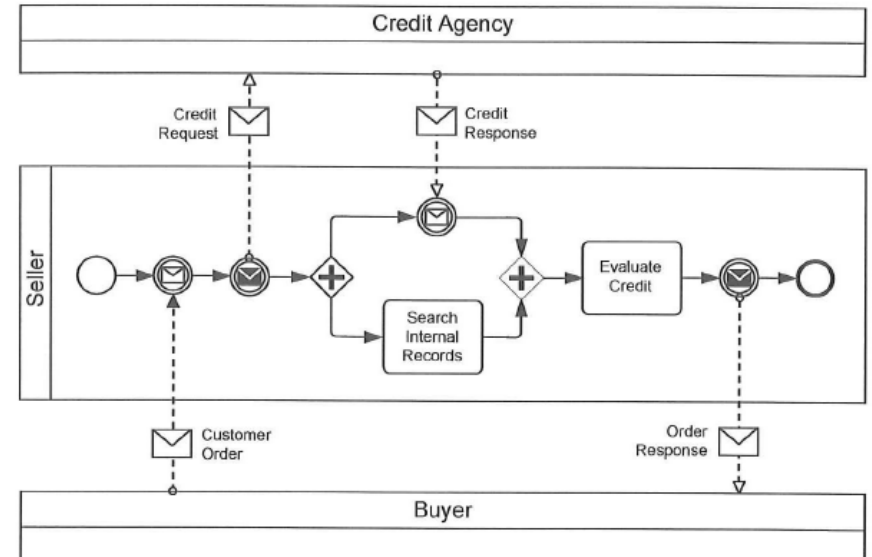■ Interactions with a [+] can be expanded; representing explicit sequencing of a Message Flow

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Interaction Processes:
Public and Private Process in Collaborations

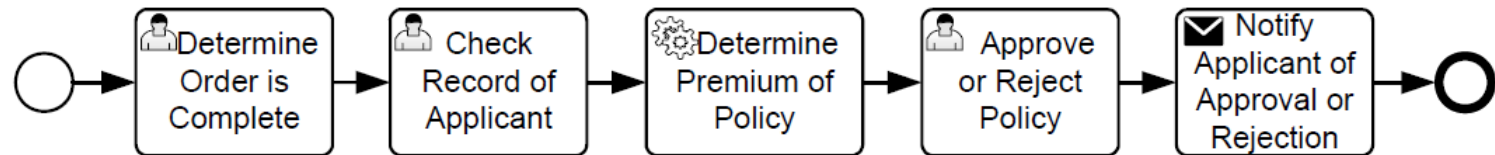Process in a collaboration
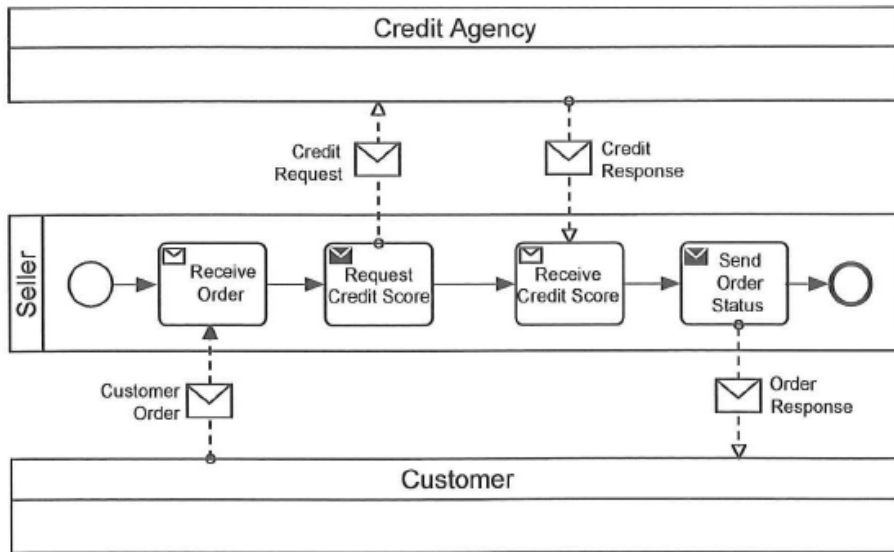
Corresponding private process

- The left process could be public, because it only sends and receives messages
- The right figure shows a possible private process containing activities that are not interactive and usually are not shown to other participants
- The Events used for sending and receiving messages have the same effects as the send and receive tasks of the left process

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Public vs. Private Process

Private Processes are internal to an organisation.

Example:

A **public process** represents the interactions between a private Business Process and another Process or Participant (represented by a different pool):

Example:

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