

Business Process Management

Lecture 2 Process Identification

Prof. Josué Obregón

Department of Industrial Engineering - ITM

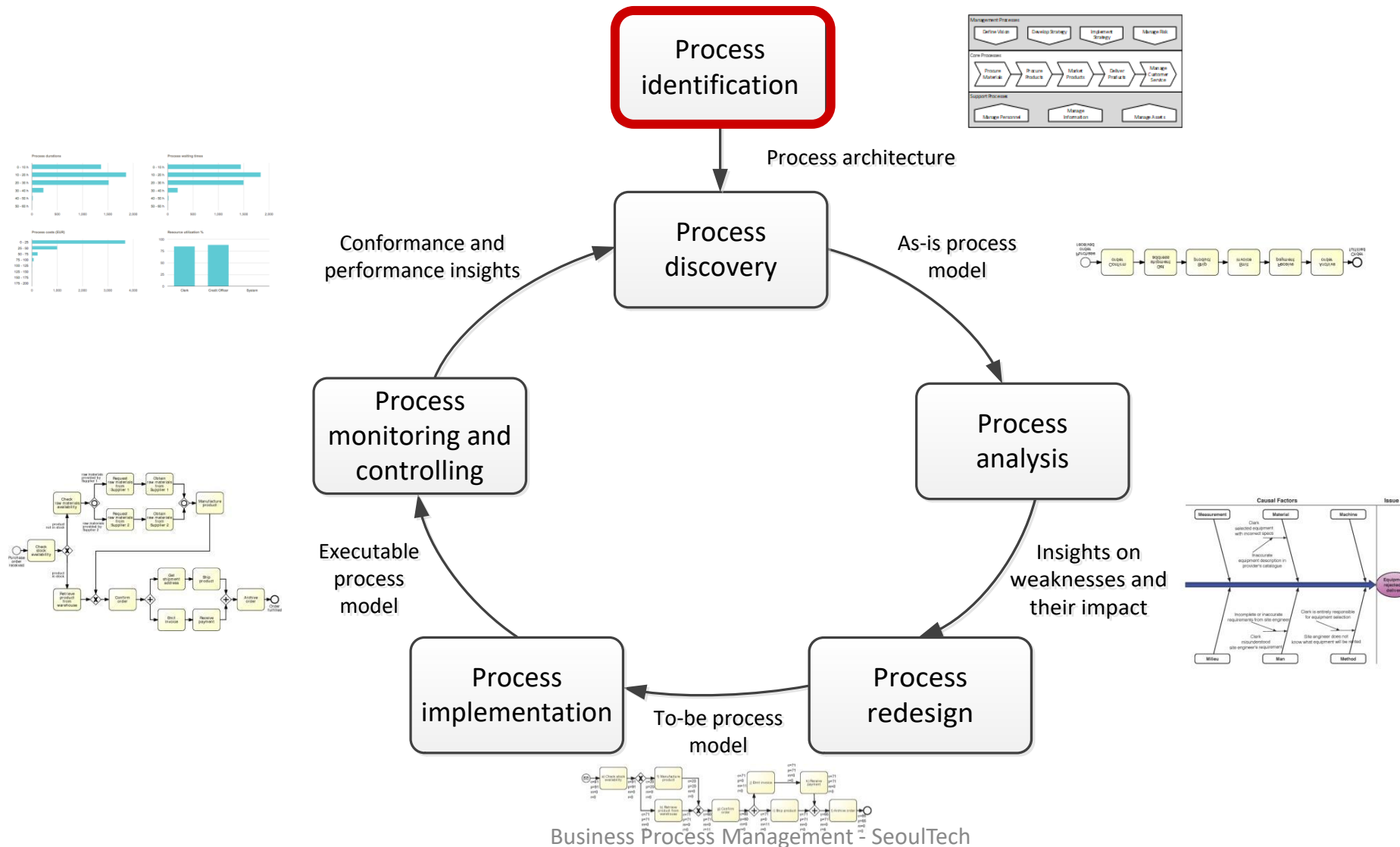
Seoul National University of Science and Technology



Contents

- The context of Process Identification
- Definition of the Process Architecture
- Process Selection

The BPM lifecycle



Process identification

What?

1. Identify an organization's business processes
2. Prioritize their management based on certain criteria

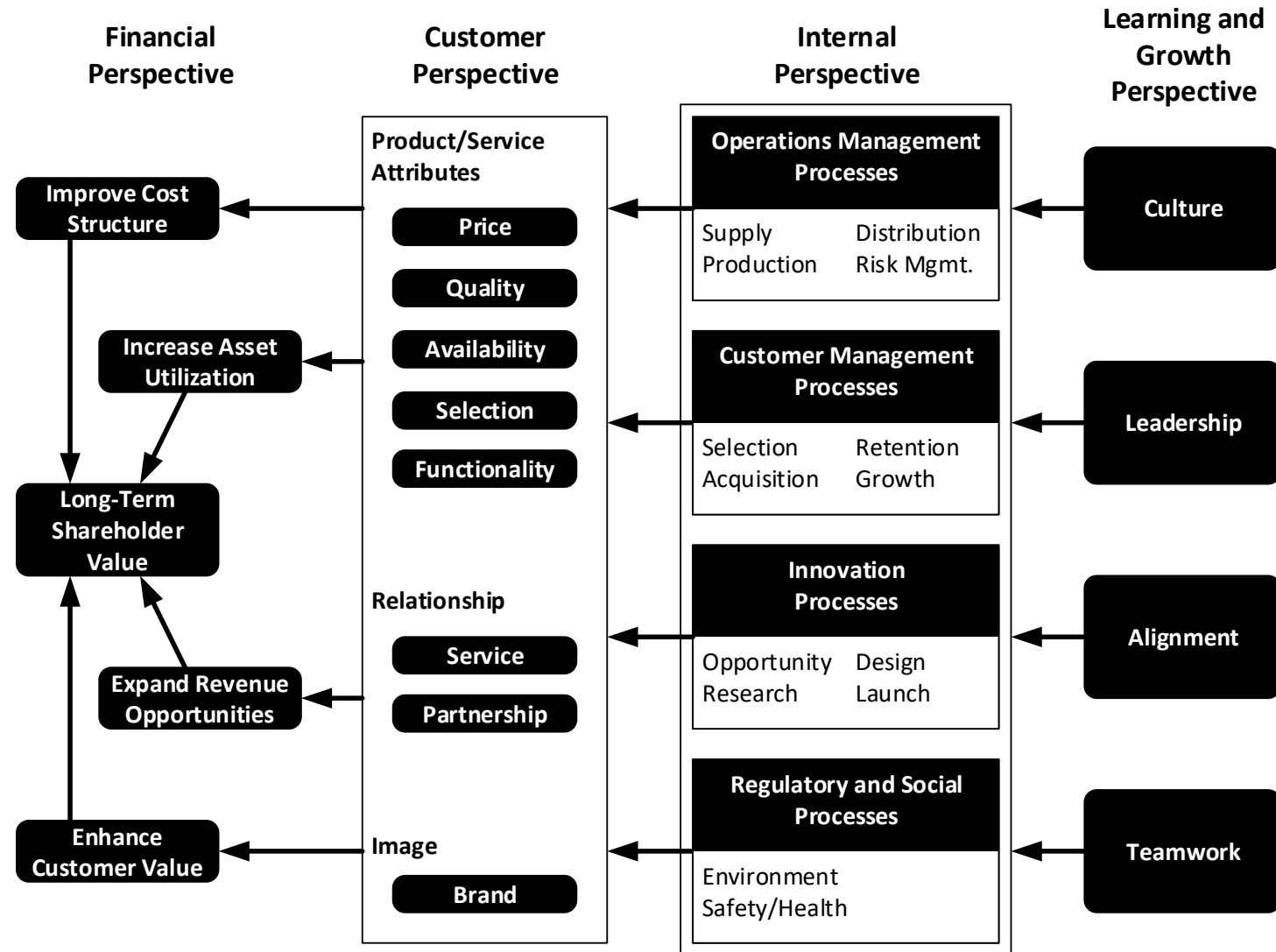
Why?

1. Understand the organization
2. Maximize value of BPM projects
 1. Strategic importance
 2. Unhealthy processes
 3. Dynamics of time → importance of process change over time

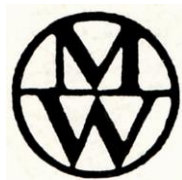


The balanced scorecard by Kaplan & Norton

Business strategy as an organizational perspective on setting and meeting business goals. (Mintzberg)



Changes of Strategic Relevance: Mannesmann



19th century



20th century



1990

Sources: stahlseite.de, Copyright Uwe Niggemeier, deutsches-telefon-museum.eu, ebay-kleinanzeigen.de, wanne-eickel-historie.de

The Process Checklist

- It may not be easy to decide on what to consider as a business process. A chunk of work that is frequently repeated might not be a business process on its own. To prevent poor scoping decisions, it is useful to consider the following process checklist:
 - **Is it a process at all?**
 - It must be possible to identify **main action**, which is applied to a **category of cases**.
 - Name is of form verb + noun
 - Outcome is in of form noun + past participle
 - **Can the process be controlled?**
 - Repetitive series of events and activities to execute individually observable **cases**.
 - Without a clear case notion, process management is not feasible.
 - Also, without any sense of repetition, a group of business activities may better qualify as a project than as a business process.
 - **Is the process important enough to manage?**
 - There is customer who is willing to pay for outcomes,
 - Organization that carries out the process would be willing to pay another party for taking over, or
 - Legal, mandatory framework compels an organization to execute it.
 - **Is the scope of the process not too big?**
 - 1:1 relation between initial event and activities.
 - **Is the scope of the process not too small?**
 - Rule of thumb: there should be at least three different actors – excluding the customer – involved.
 - If there are no handoffs between multiple actors or systems, there is little that can be improved using BPM methods.

Process identification steps

1. Definition of Process Architecture (aka Designation)

- Enumerate main processes
- Determine process scope



Process
Architecture

2. Selection of Processes (aka Prioritization)

Prioritize processes based on:

- Importance
- Health
- Feasibility

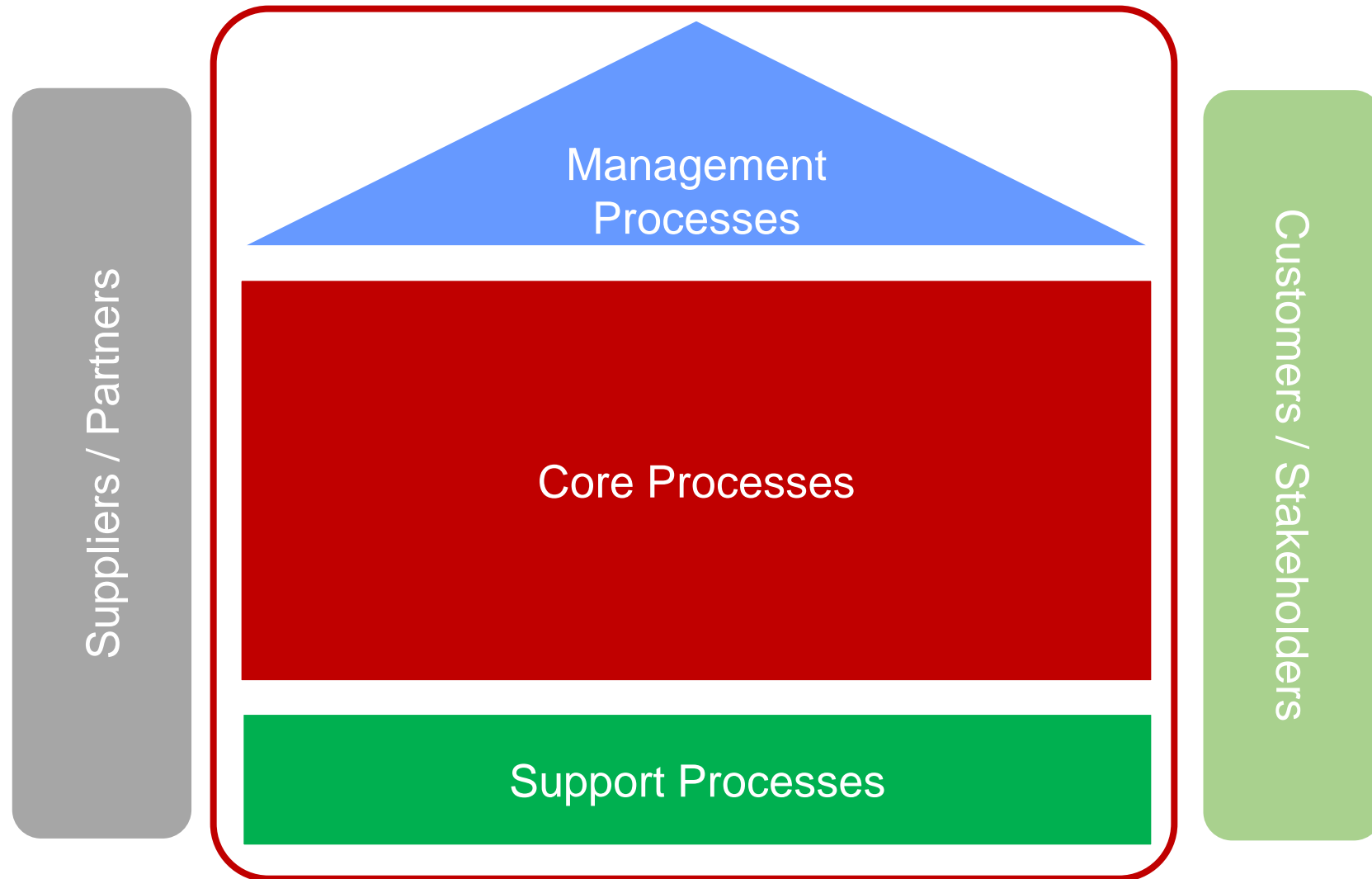
Process Enumeration

“Most businesses have just three core processes:

1. Sell product or services
2. Deliver products or services
3. Making sure you have product or services to sell and deliver”

Geary Rummler

Porter: Types of processes



Example: core, support and management processes

Grocery Wholesaler

Core processes

- Sales (lead-to-quote, quote-to-order, order-to-cash)
- Purchase-to-Pay (direct procurement, e.g. supplies replenishment)
- ...

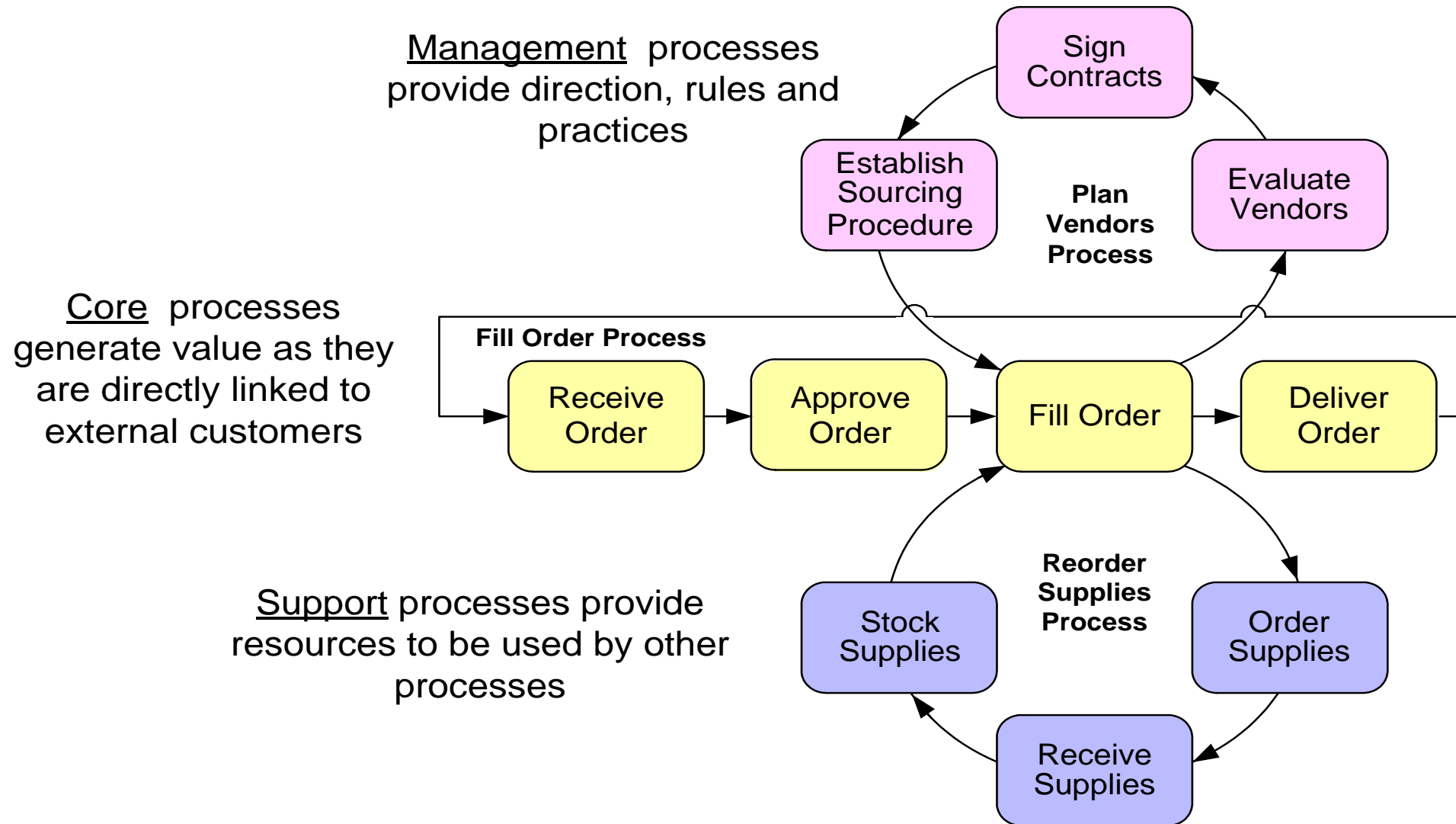
Support processes

- Purchase-to-pay (indirect procurement, e.g. parts replenishment, operational resources replenishment...)
- HR (policies update, recruitment, induction, probation...)
- ...

Management processes

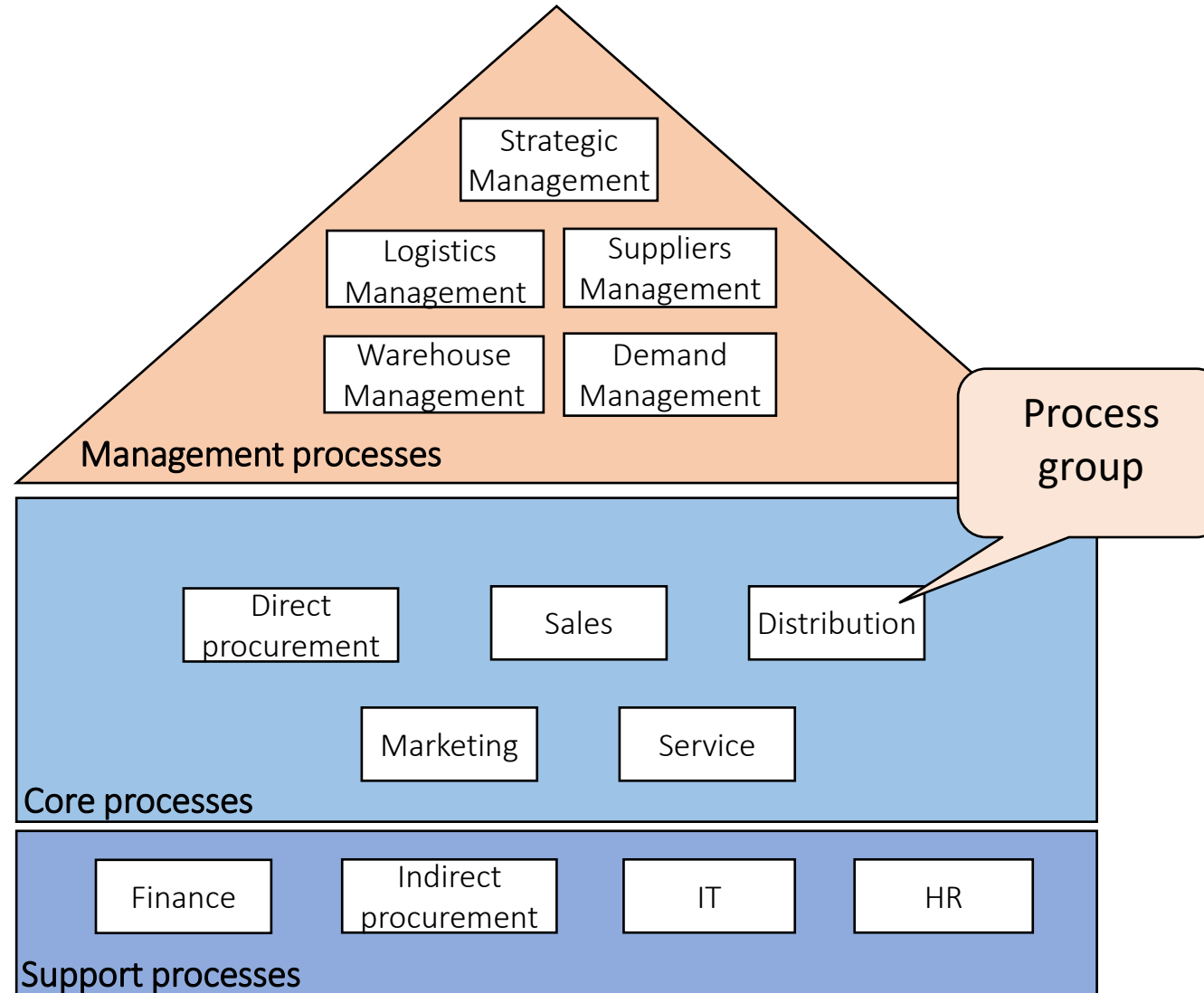
- Suppliers management (suppliers planning, suppliers acquisition...)
- Logistics management (logistics planning, logistics controlling...)
- ...

Relations between core, support, management processes



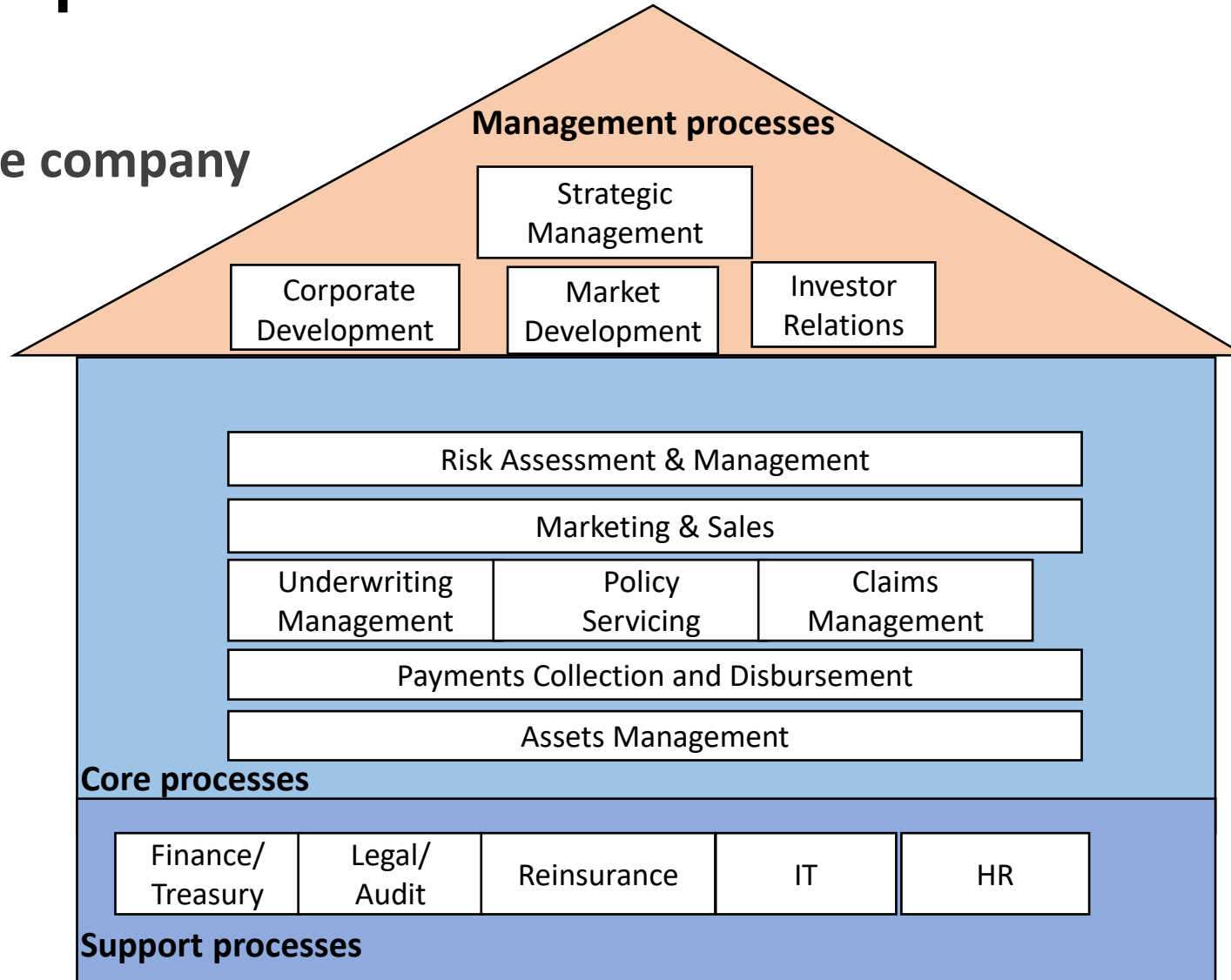
Example: process architecture

Wholesaler



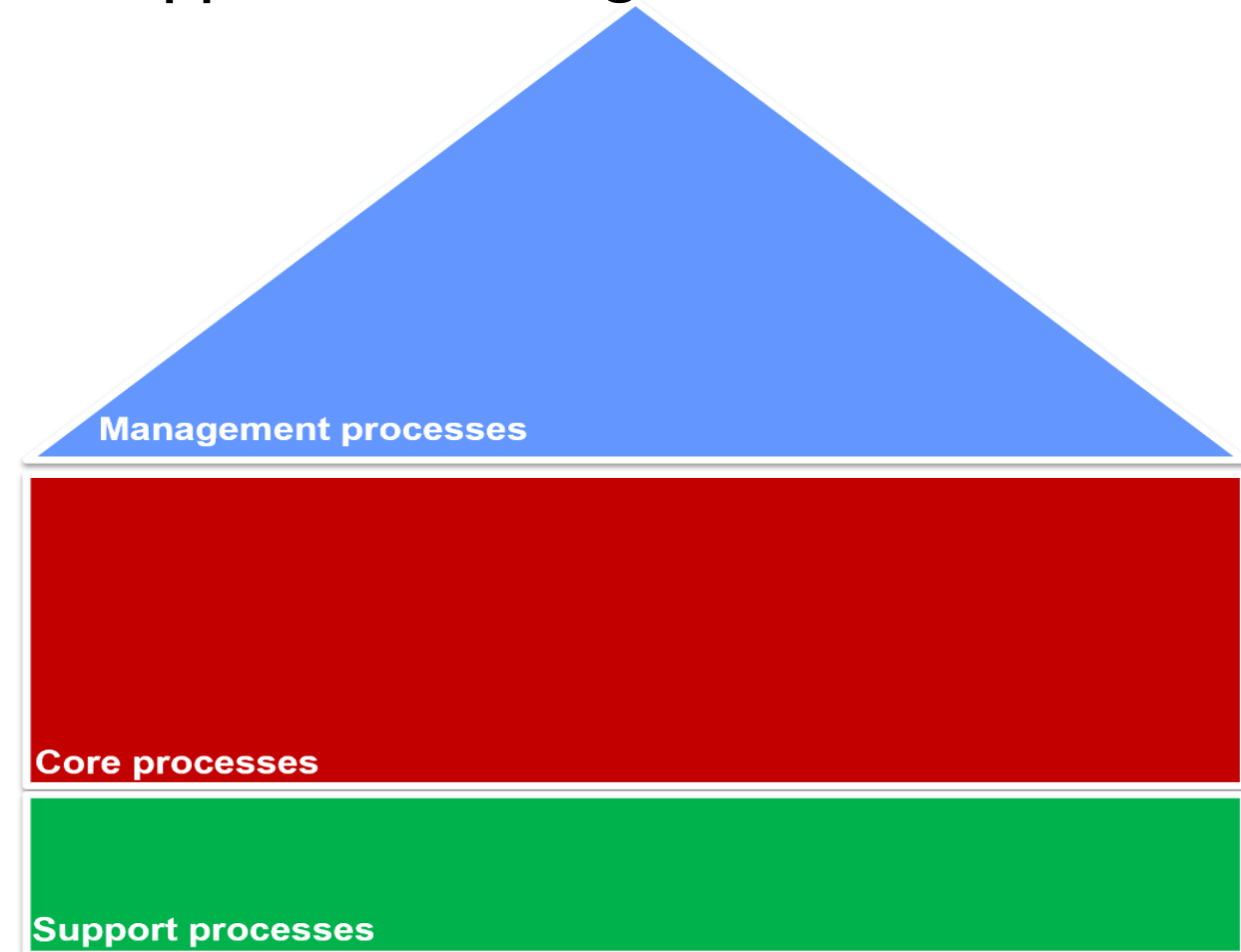
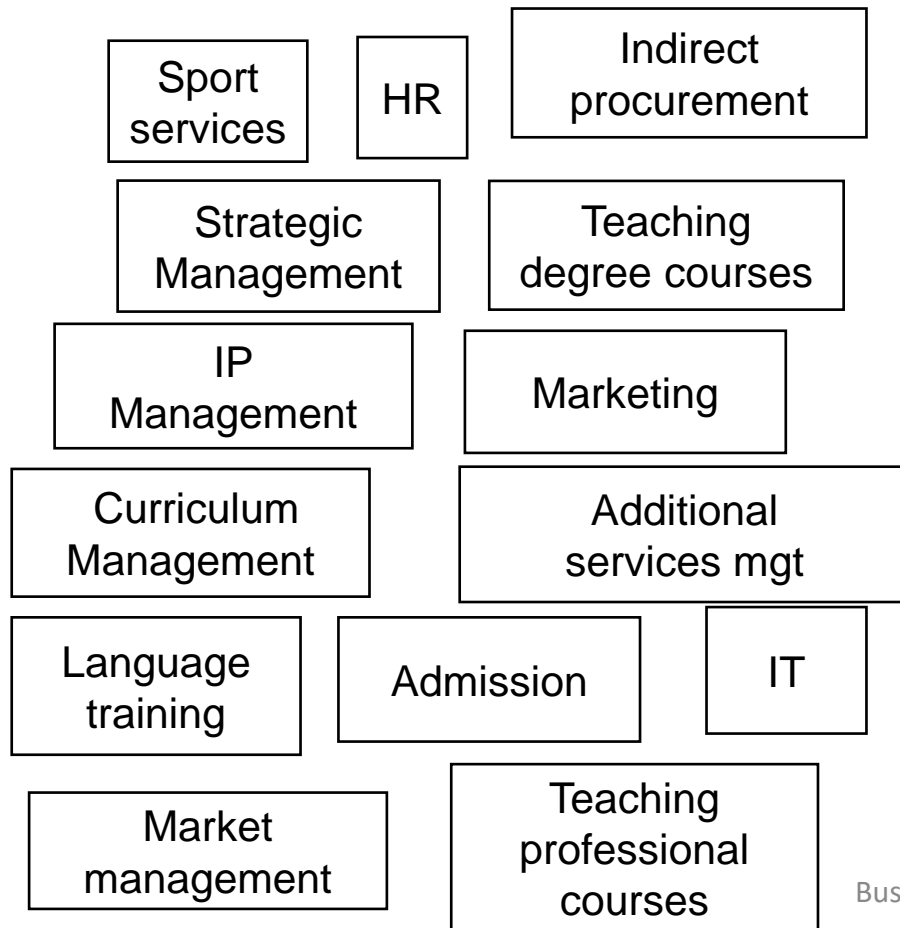
Example: process architecture

Insurance company

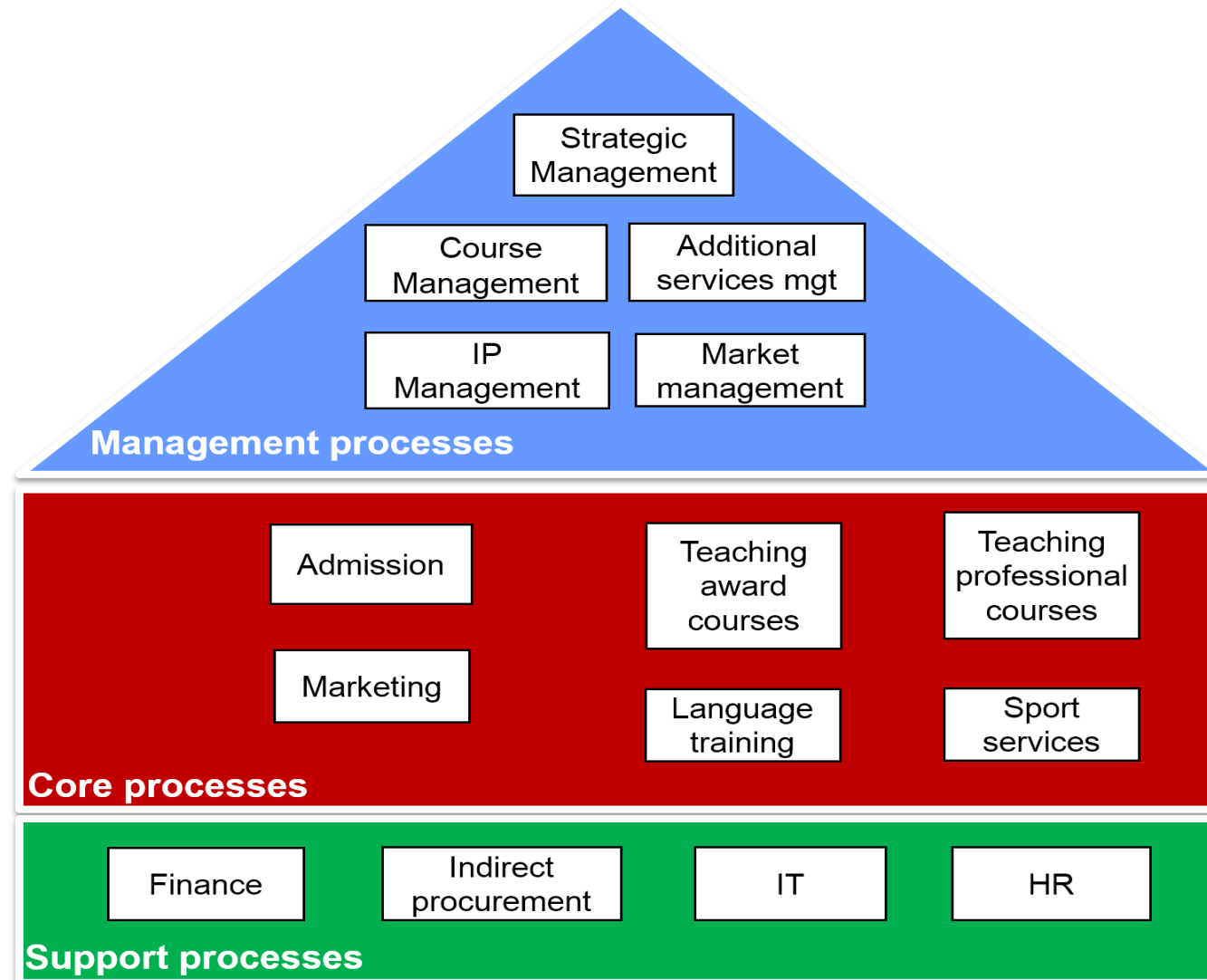


Exercise: classify by process type

These groups of processes are typically performed at a university.
Categorize each process group as core, support or management



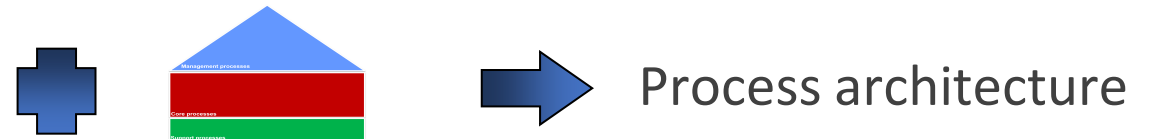
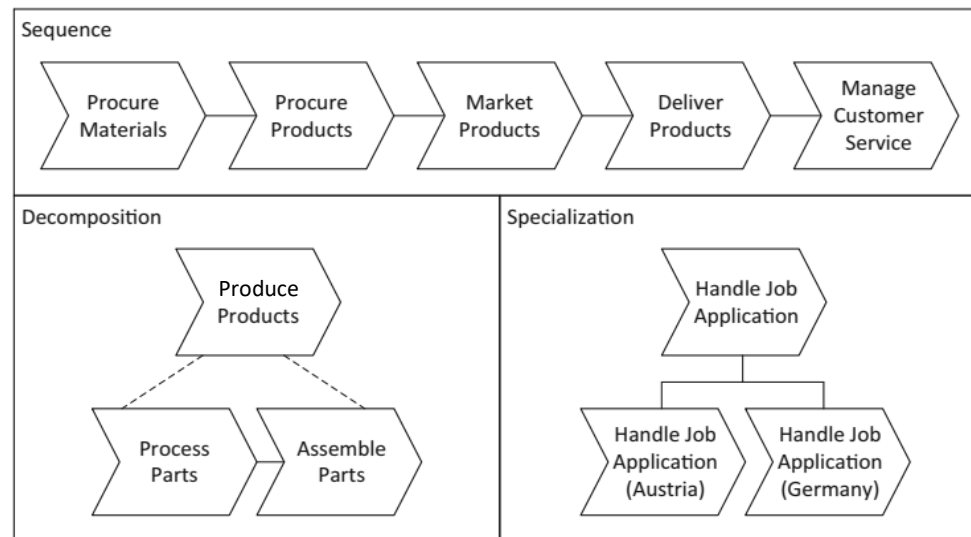
Solution: identify process types



Process scoping

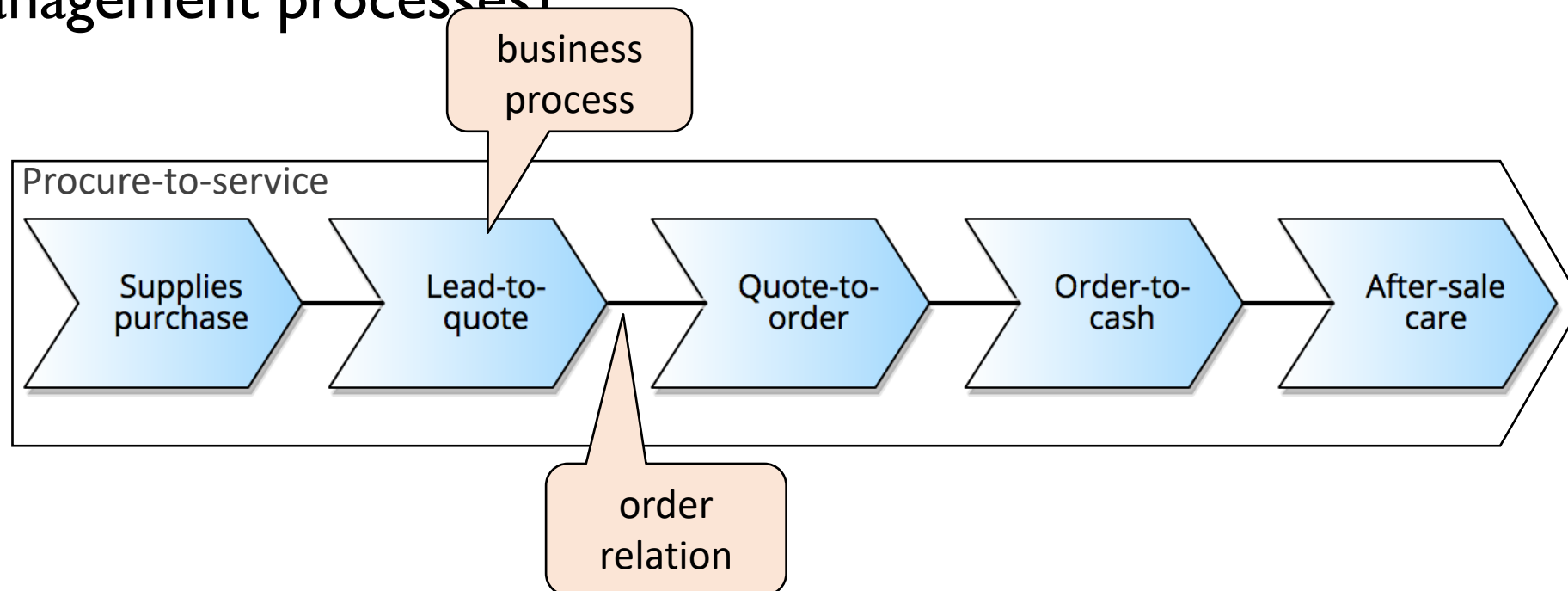
Processes are interdependent → insights into interrelations required

- Sequence (Horizontal): logical sequence, output of one process is the input of the next one
 - Upstream – downstream → value chains
- Decomposition (Vertical hierarchical): one specific process is described in more detail in one or more subprocesses
 - main processes – sub-processes
- Specialization: general – special product/service



Value chain modeling

- Chain of *processes* an organization performs to deliver value to customers and stakeholders
- More generally, a mechanism to group high-level business processes according to an order relation (can be applied to core, support and management processes)



Guidelines to identify horizontal boundaries in value chains

1. Change of key business object in the process
2. Change of granularity of main business object
3. Change in frequency/time
4. Change in intermediate outcome/resolution/objective

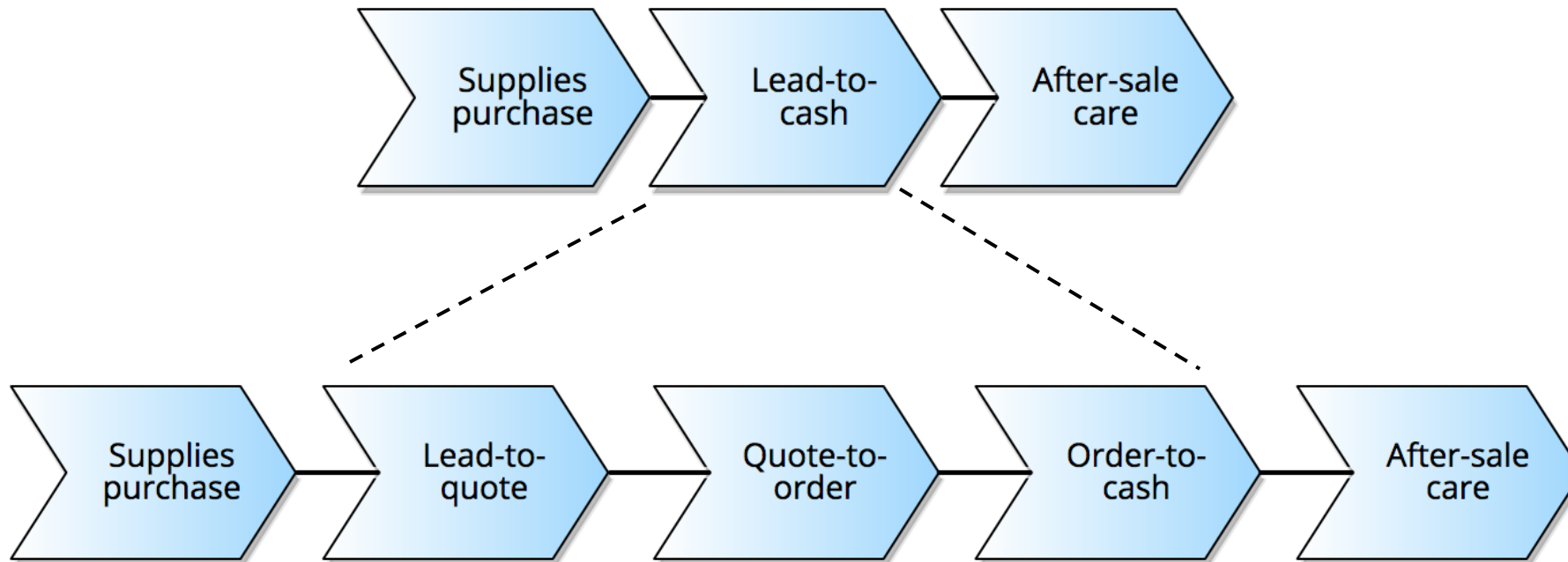
Your Company 123 Street Name Your City, ST 12345 (123) 456-7890		Purchase Order Date 1/15/2022 P.O. number 12345678 Customer ID #123456		
Delivery date 2/1/2022	Ship via Shipping company	Terms Shipping & payment terms		
Vendor Name Company name Street address City, State, Zip (123) 456-7890 no_reply@example.com		Ship to Your Name Your Company 123 Your Street Your City, ST 12345 (123) 456-7890 no_reply@example.com		
Item #	Description	Qty	Unit price	Total price
12345-1	Item 1	2	\$45.00	\$90.00
12345-2	Item 2	3	\$55.00	\$165.00
12345-3	Item 3	2	\$65.00	\$130.00
12345-4	Item 4	2	\$25.00	\$50.00
Note 1		Subtotal		\$435.00
Note 2		Discount (%)		
Note 3		Subtotal Less Discount		\$435.00
		Shipping & handling		\$15.00
		Tax rate		8.60%
		Sales tax		\$37.41
		Total		\$487.41
Approved By: _____ Authorized Signature Date				



Example: value chain

Wholesaler

Core processes

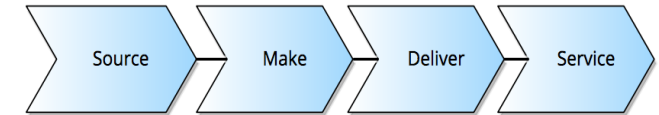


Typical value chains for core processes

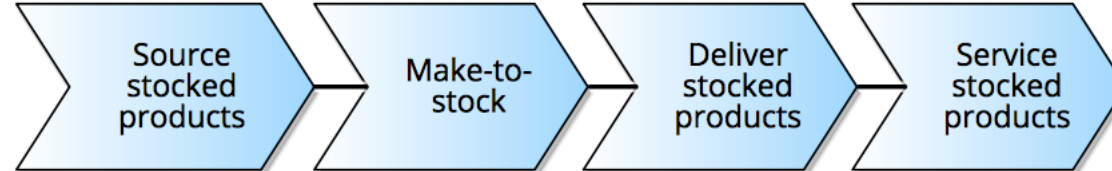
Think around three main steps:

- Imagine it (design new product/service)
- Build it (source, assemble, deliver product/service)
- Sell it (market, sell, service product/service)

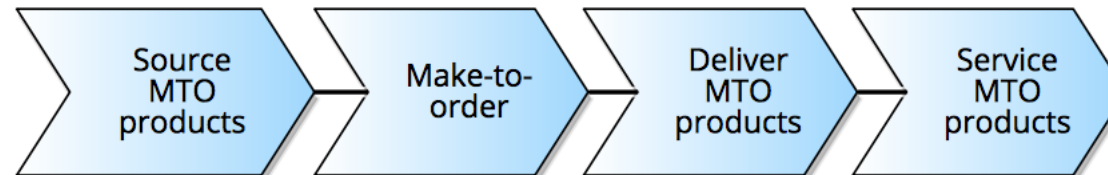
Example: Producer



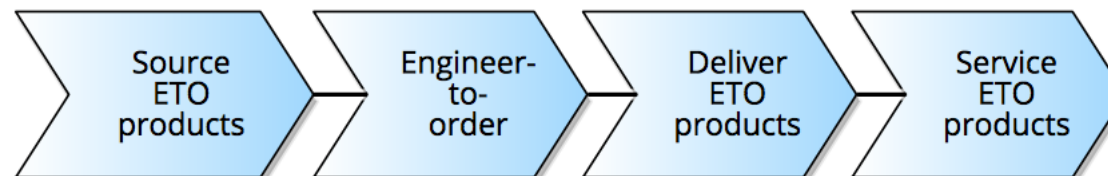
Stocked products:



MTO products:



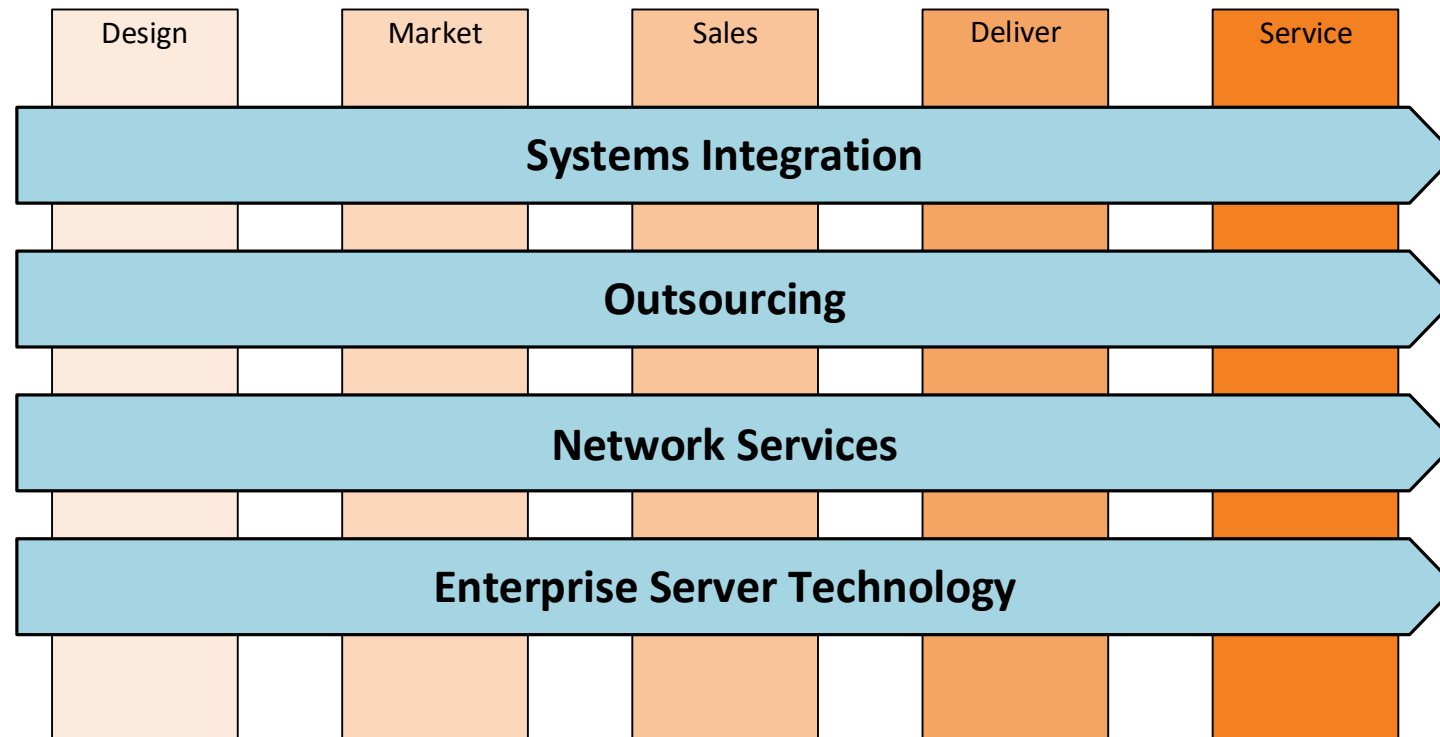
ETO products:



Specializations

Example: value chains for service provider

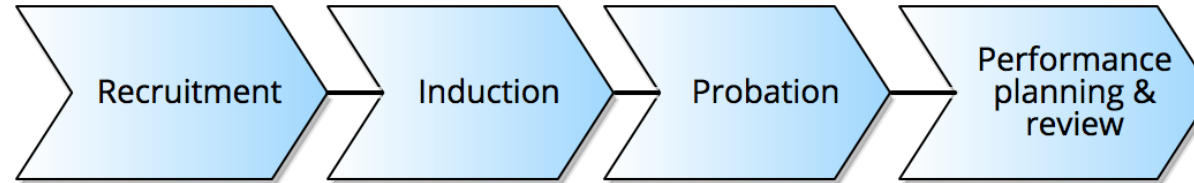
IT service provider



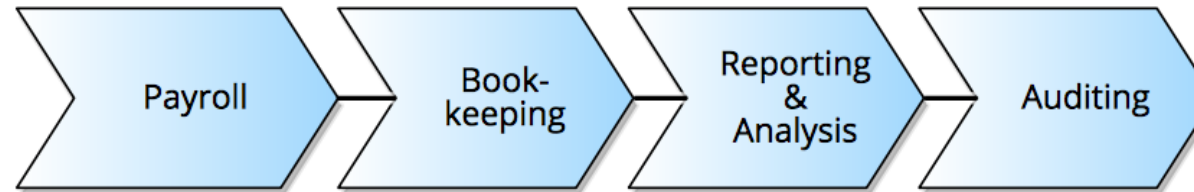
Example: value chain of non-core processes

Support processes

HR:

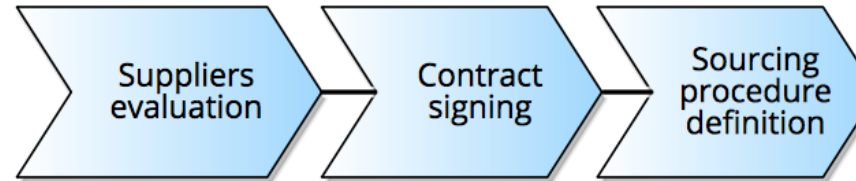


Accounting:

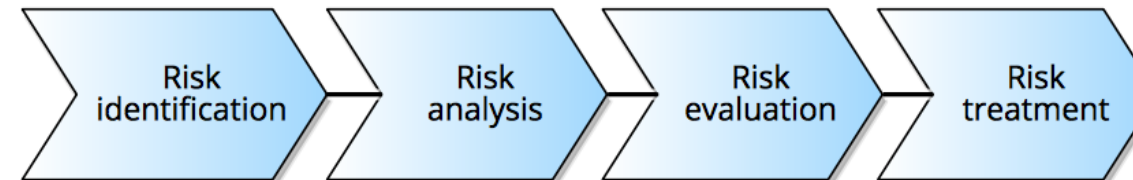


Management processes

Suppliers management:

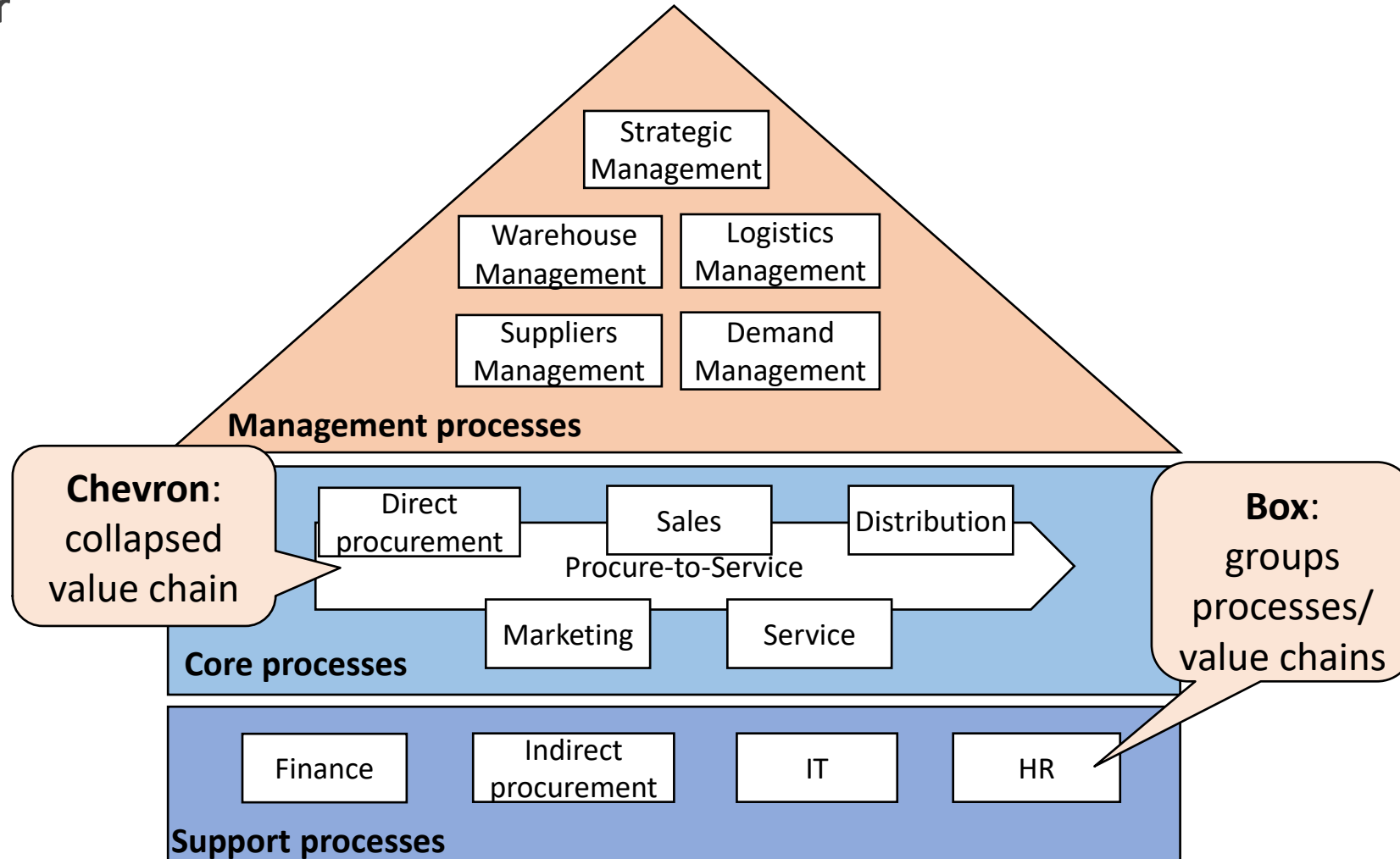


Risk management:



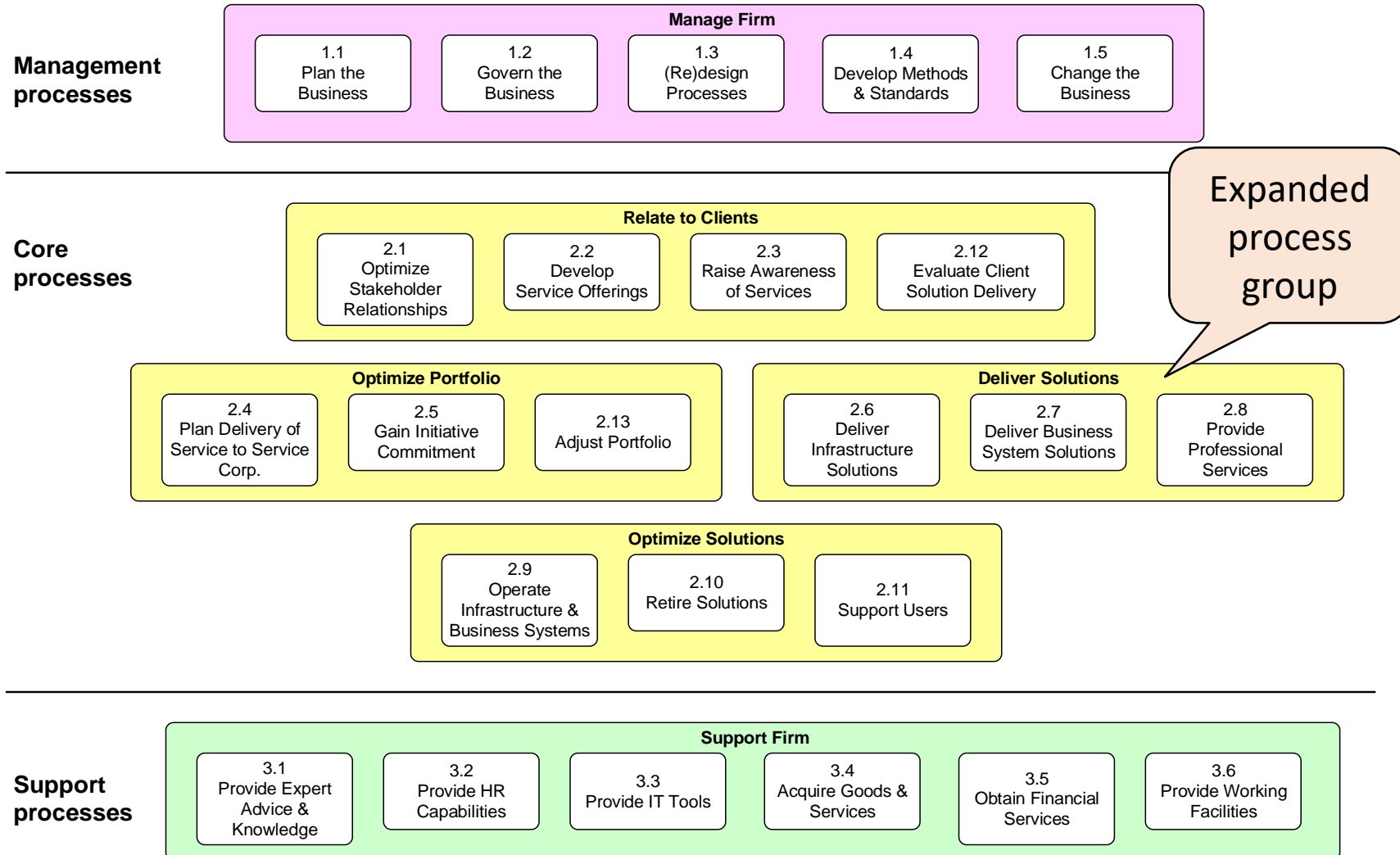
Example: process architecture & value chains

Wholesaler



Alternative: process architecture – groups

Consultancy Firm



Typical artifacts for vertical scoping

Value chains

Chains of processes. Stay at a high level. Rule of thumb: 3-7 processes

- *Procure-to-service, Risk management*

(Root/Main) Processes

Build up value chains and affect each other. They are abstract

- *Procure-to-service → Lead-to-quote, Quote-to-order, Order-to-cash*

Subprocesses

These are detailed, involve multiple activities and can be layered on different levels.

- *Order-to-cash → shipment handling, invoicing handling*

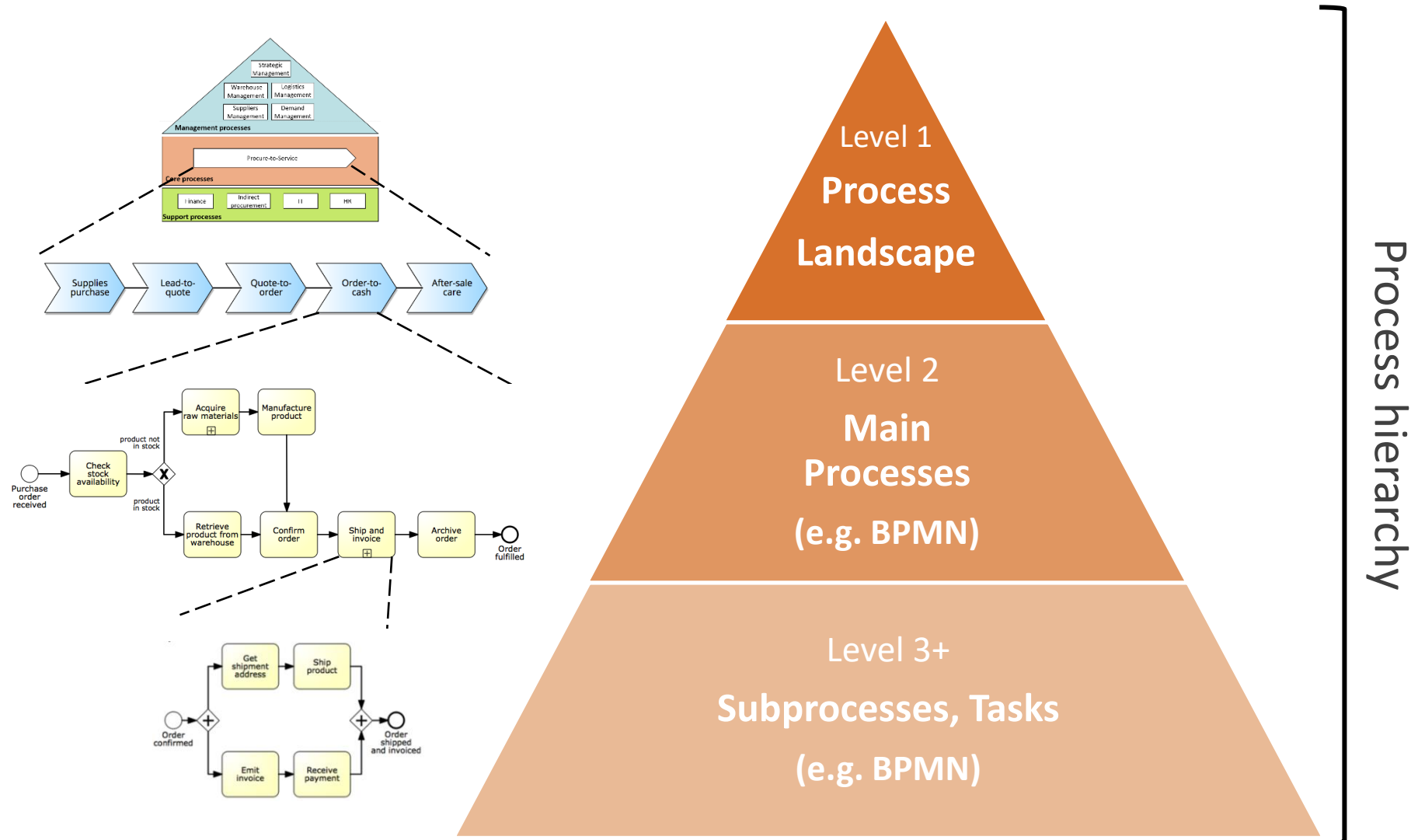
Tasks

These are atomic and performed by human resources, IT systems or equipment

- *E.g. Approve invoice*

Typical focus of
Process
enumeration

Process architecture: hierarchical view



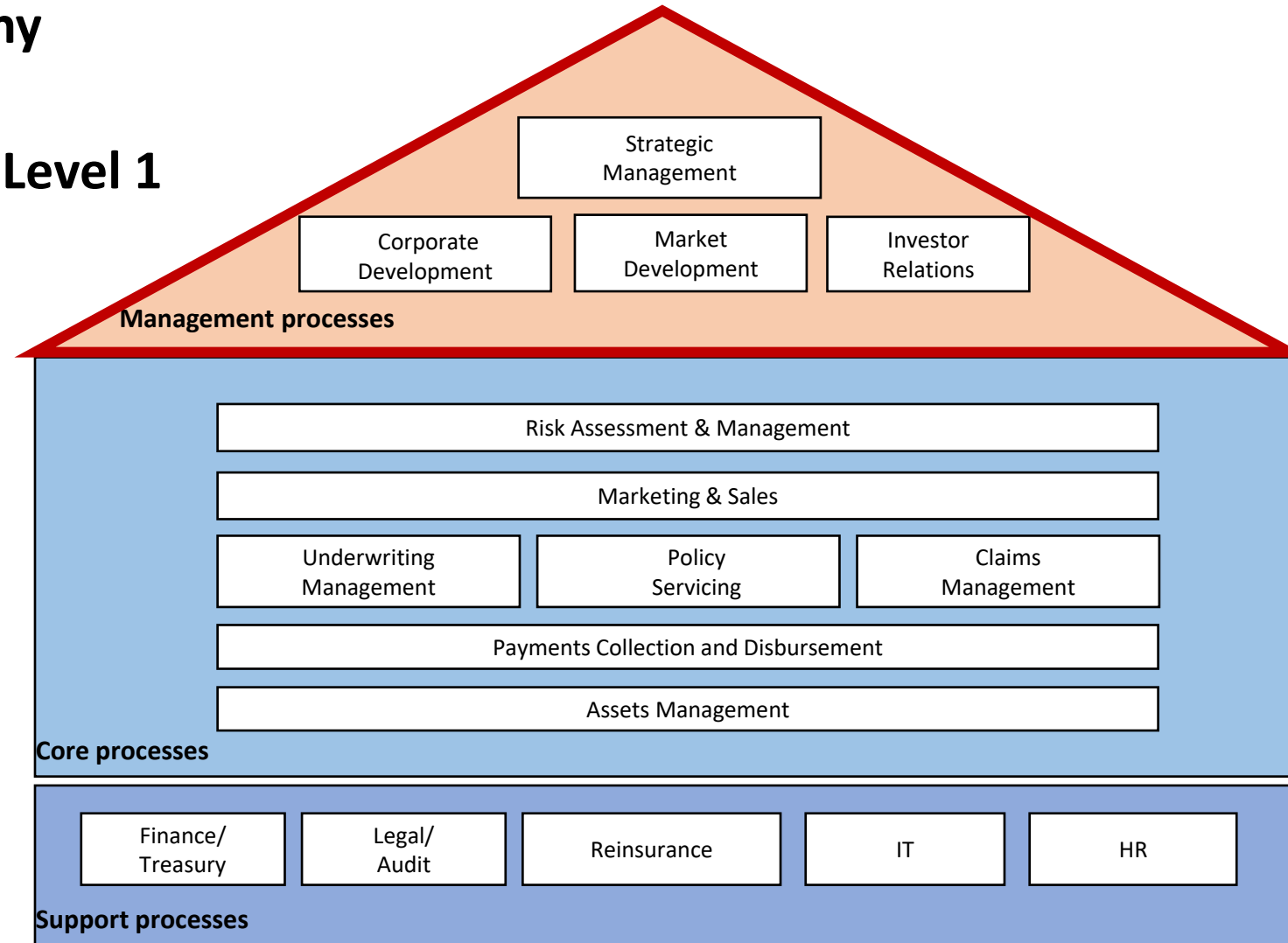
How many levels in the process architecture?



Example: hierarchical process architecture

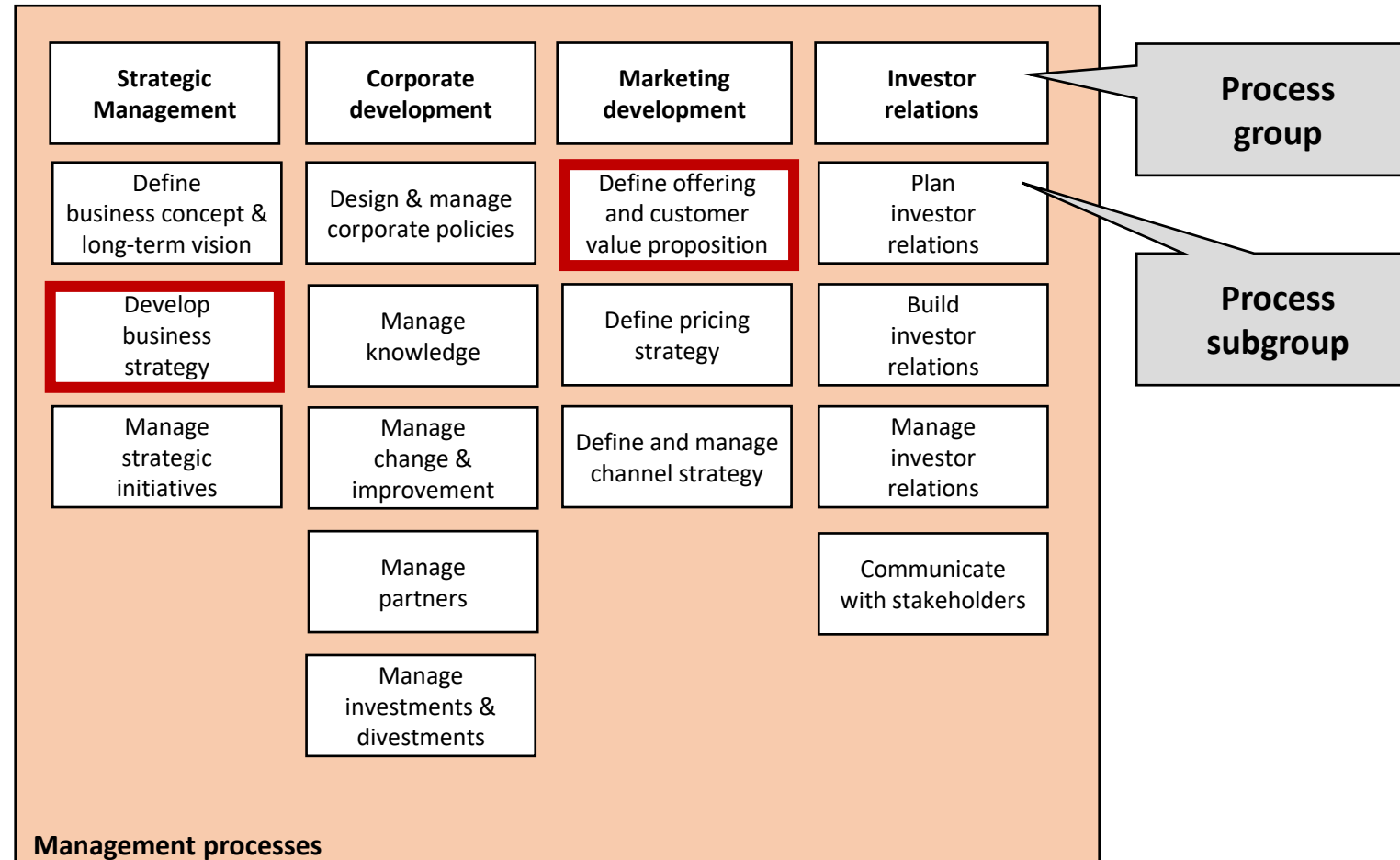
Insurance company

Level 1



Example: hierarchical process architecture

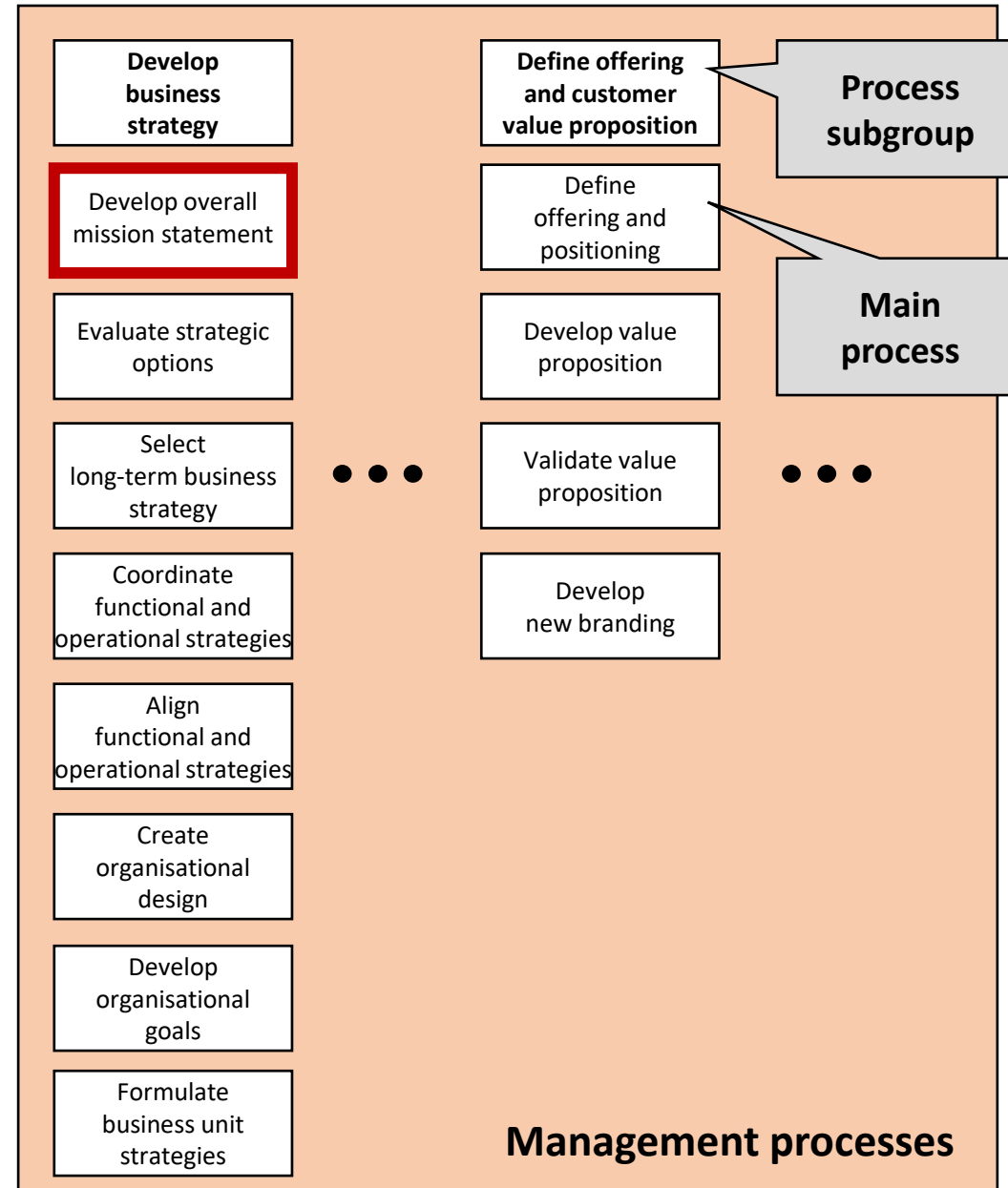
Insurance company Level 2



Example: process architecture

Insurance company

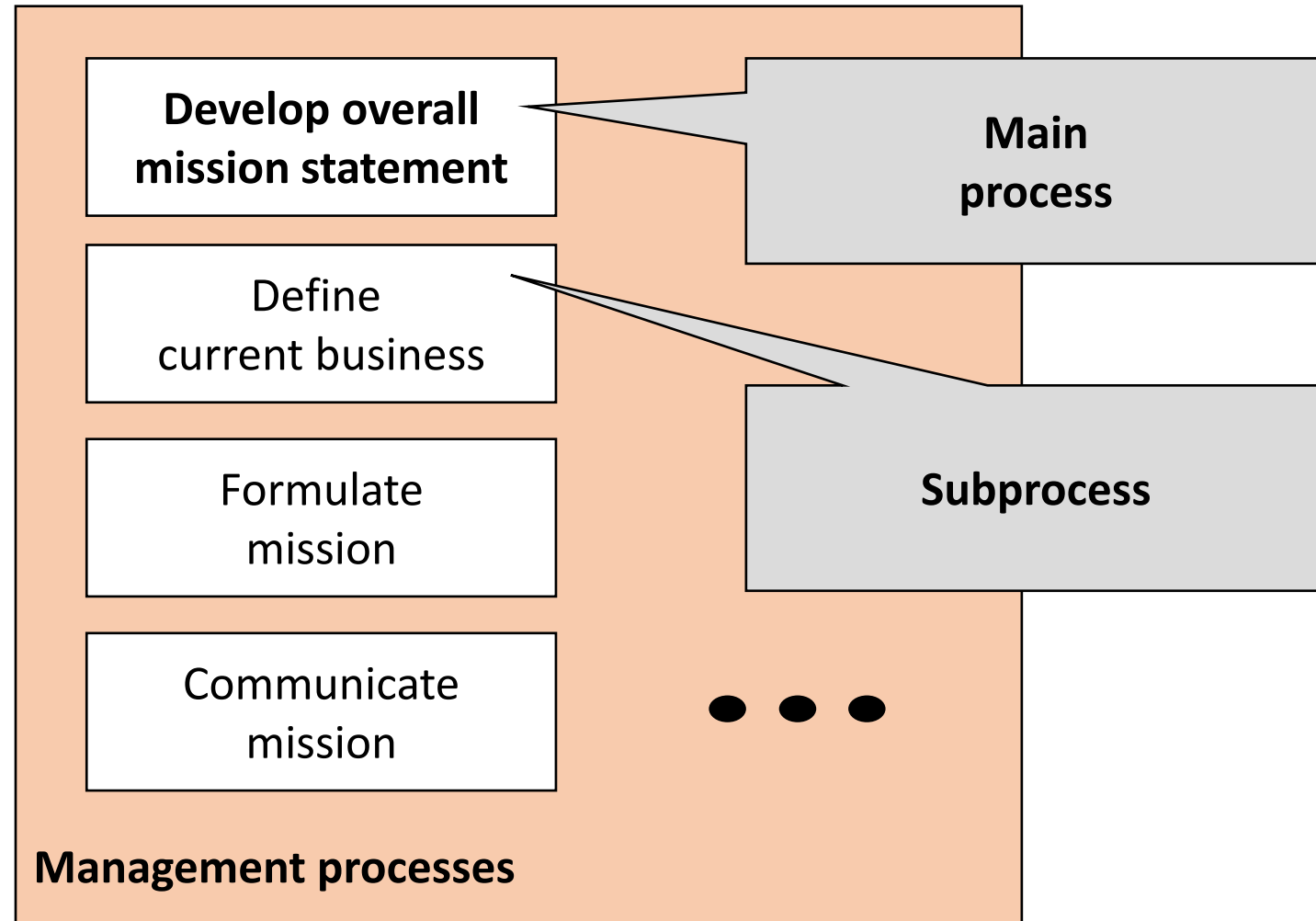
Level 3



Example: hierarchical process architecture

Insurance company

Level 4



Process identification steps

1. Definition of Process Architecture (aka Designation)

- Enumerate main processes
- Determine process scope




Process
Architecture

2. Selection of Processes (aka Prioritization)

Prioritize processes based on:

- Importance
- Health
- Feasibility



Prioritized
Process
Portfolio

Prioritization

1. Importance

Which processes have greatest impact on the organization's strategic objectives?

2. Health (or Dysfunction)

Which processes are in deepest trouble?

3. Feasibility

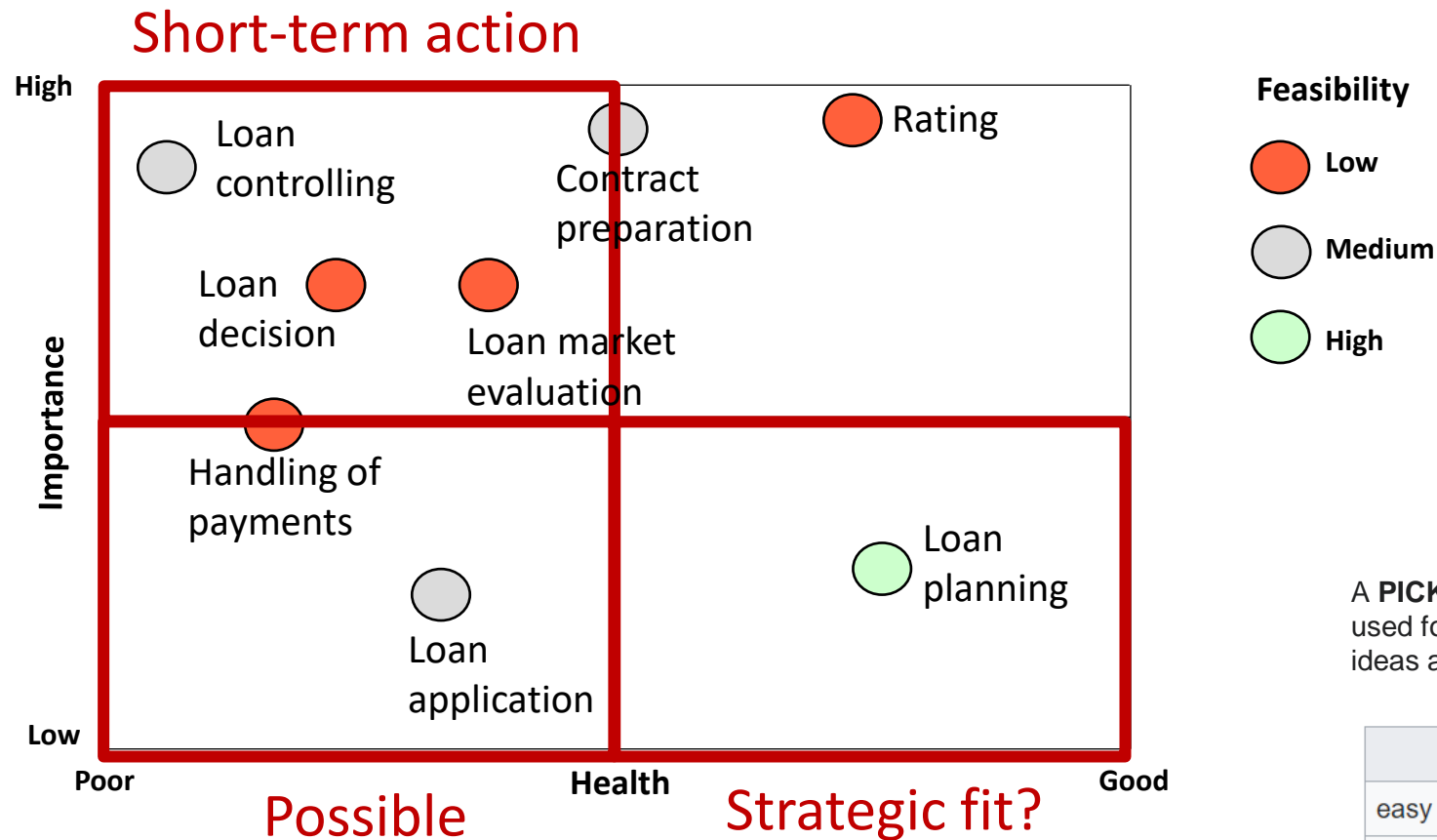
Which processes are most susceptible to successful process management?



Prioritized process portfolio

Example: prioritized process portfolio

Financial institution



A **PICK chart** is a Lean Six Sigma tool used for organizing process improvement ideas and categorizing them

	Payoff Low	Payoff High
easy to do	Possible	Implement
hard to do	Kill	Challenge

Should all prioritized process be managed?



- Managing multiple process simultaneously
 - Increase cost of BPM and resource utilization
 - Increase complexity
 - Can be risky
- Consider starting with a small set of processes
 - Relatively important but not strategically critical processes
 - Dysfunctional but not affected by deep performance issues

Recap

- In this week, we discussed process identification.
- Process architecture definition aims at enumerating major processes of organization.
- Process architecture defines relationship between processes.
- Process selection is concerned with prioritizing processes.
- Priorities upon importance of processes, health, and feasibility of improvements.
- Assessed by process owners or grounded on process performance measures and objectives.
- Process portfolios help in selection of processes for improvement.
- Selected processes become subject of remaining phases of BPM lifecycle.

Further Readings & Resources

- Fundamentals of Business Process Management
 - Chapter 2 – Process Identification
 - Learned in this Lecture
 - Section 2.1, 2.2.1, 2.2.2, 2.3.1, 2.3.3
 - Extra content (not evaluated)
 - Section 2.2.3, 2.2.4, 2.2.5, 2.3.2

Next Week

Essential Process Modeling

