



Introduction to Accounting

Prof. Dr. Bernd Grottel
Certified Public Accountant & Tax Advisor

—
Winter term 2025/2026

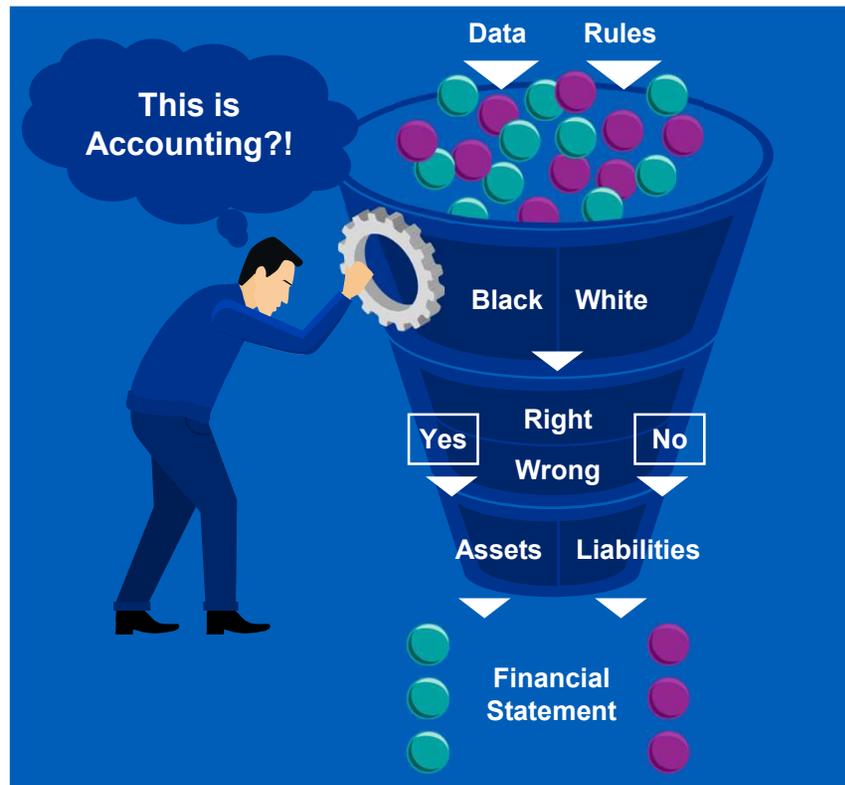
TUM



Uhrenturm der TUM

Purpose of this lecture

Before listening to this lecture



Public perception of accounting

At the end of the lecture



Accounting is the language of business

Introduction to Accounting

1

Basics of accounting

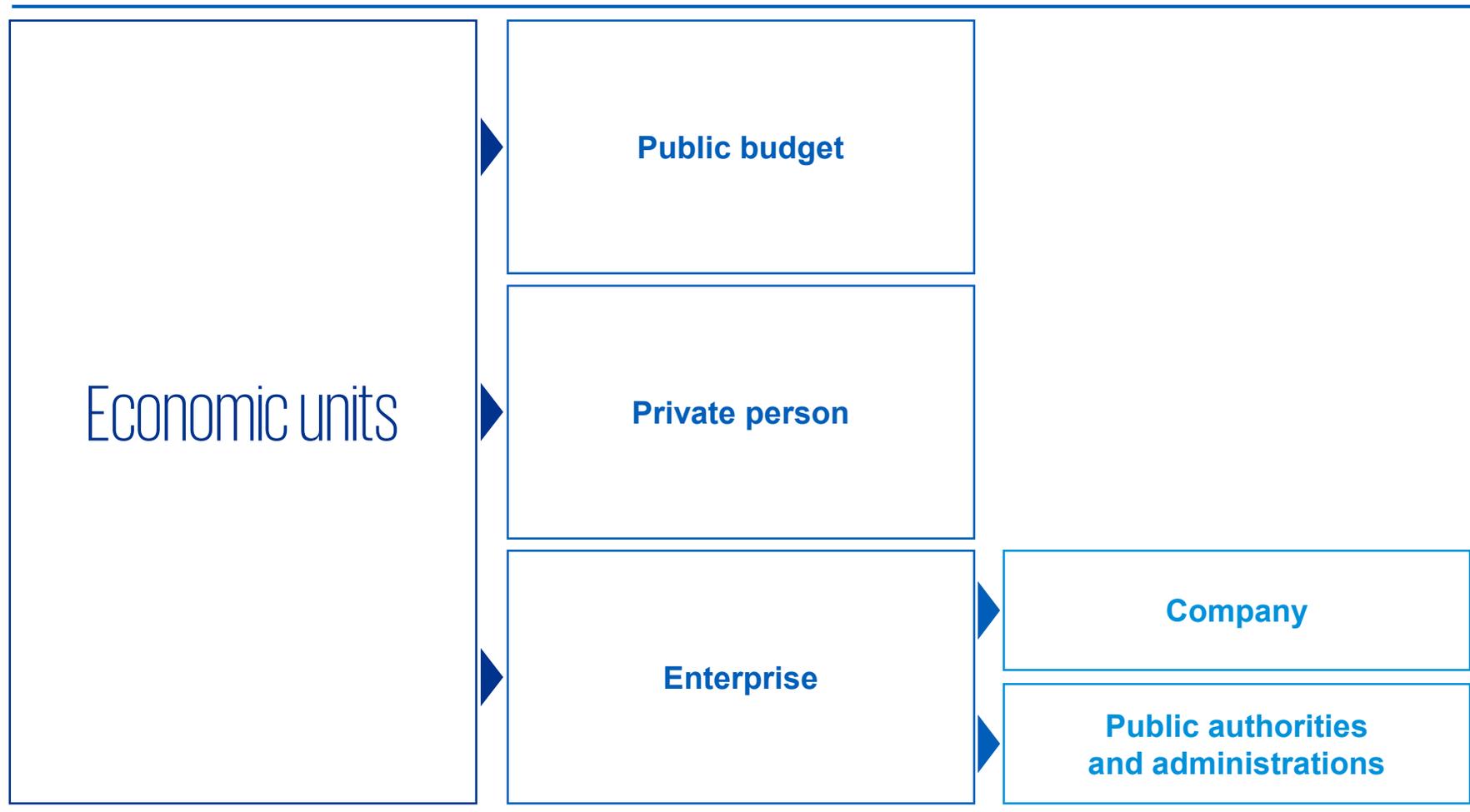
2

Basic terms of accounting

3

Basics of financial accounting

Types of economic units



Definition "company"

- There is no uniform definition of the term "company"
- It depends on the purpose of the individual legislation
- There are two ways to differentiate the term "company":

Company



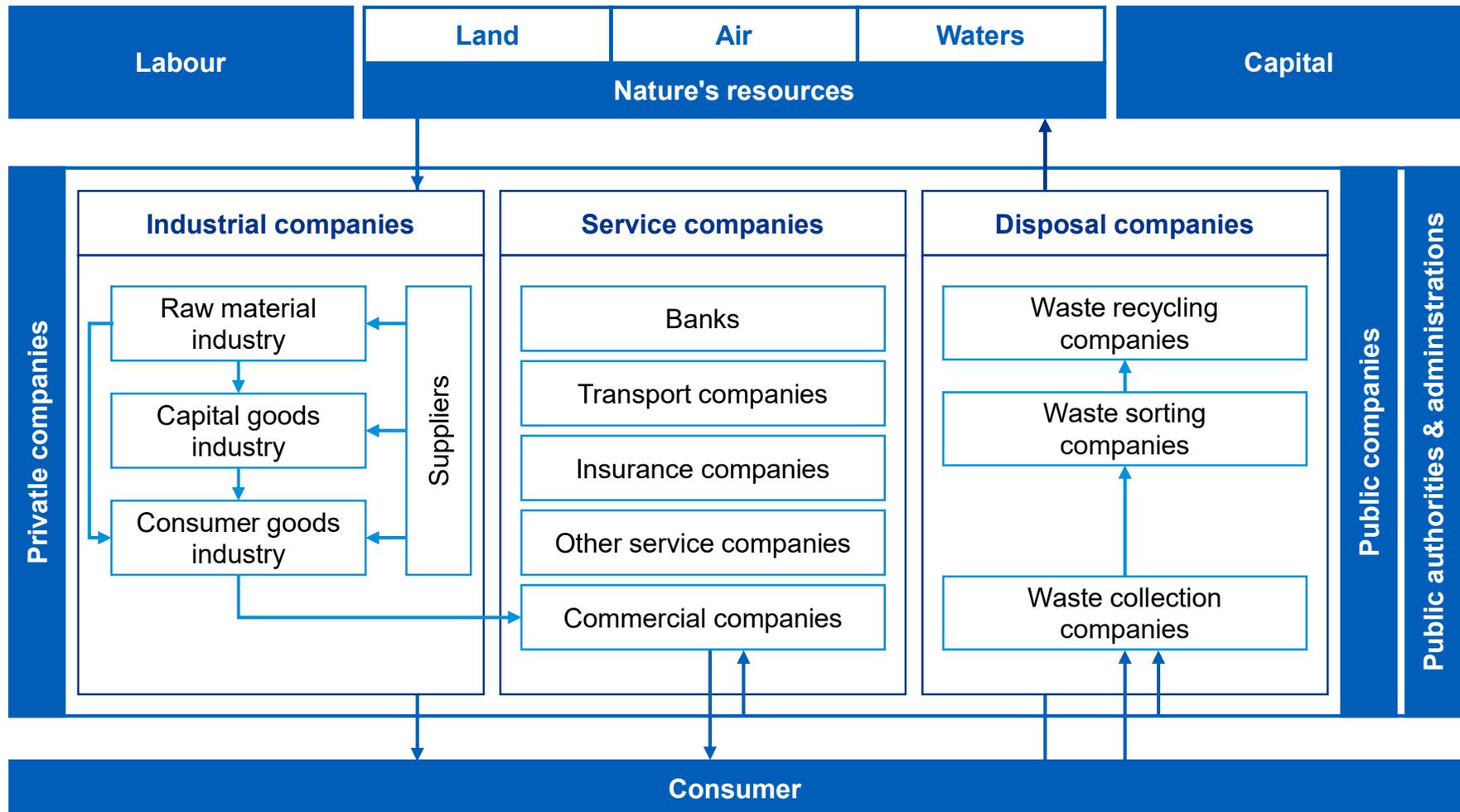
Functional term

A company is deemed to exist if a legal or natural person is entrepreneurially planning and operating.

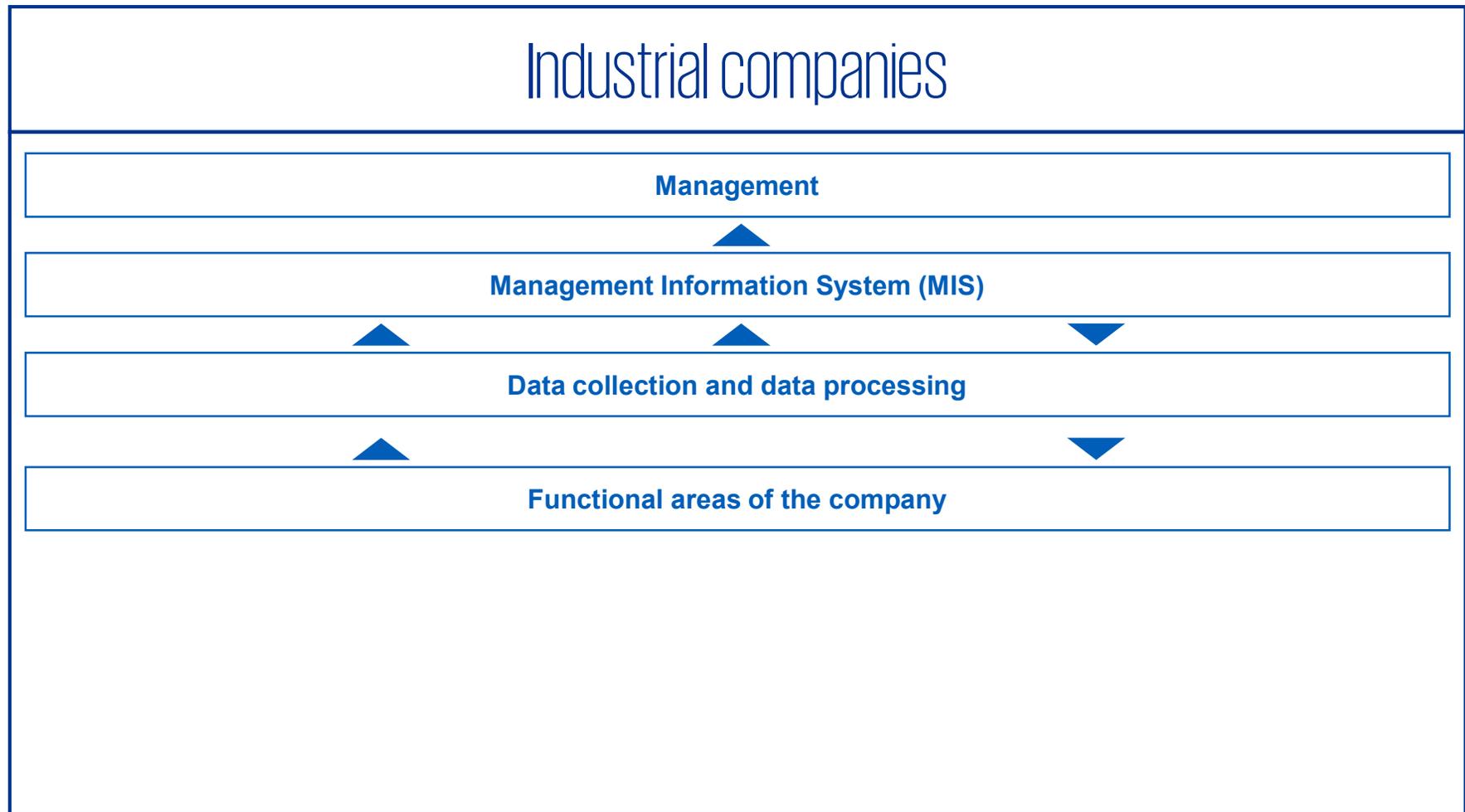
Institutional term

The Company requires a commercial activity in the economy and a minimum level of institutional means.

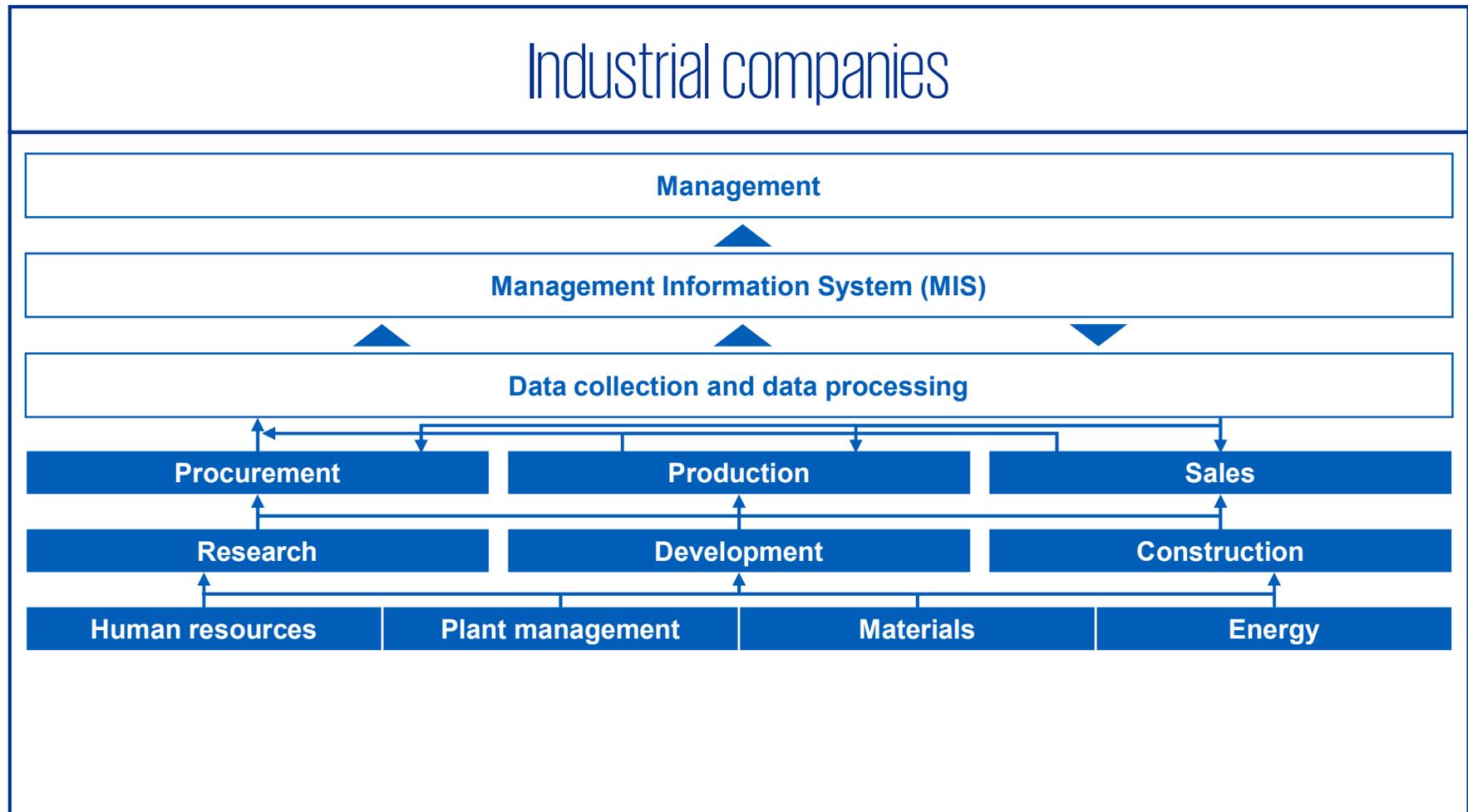
Different types of companies as part of the economy



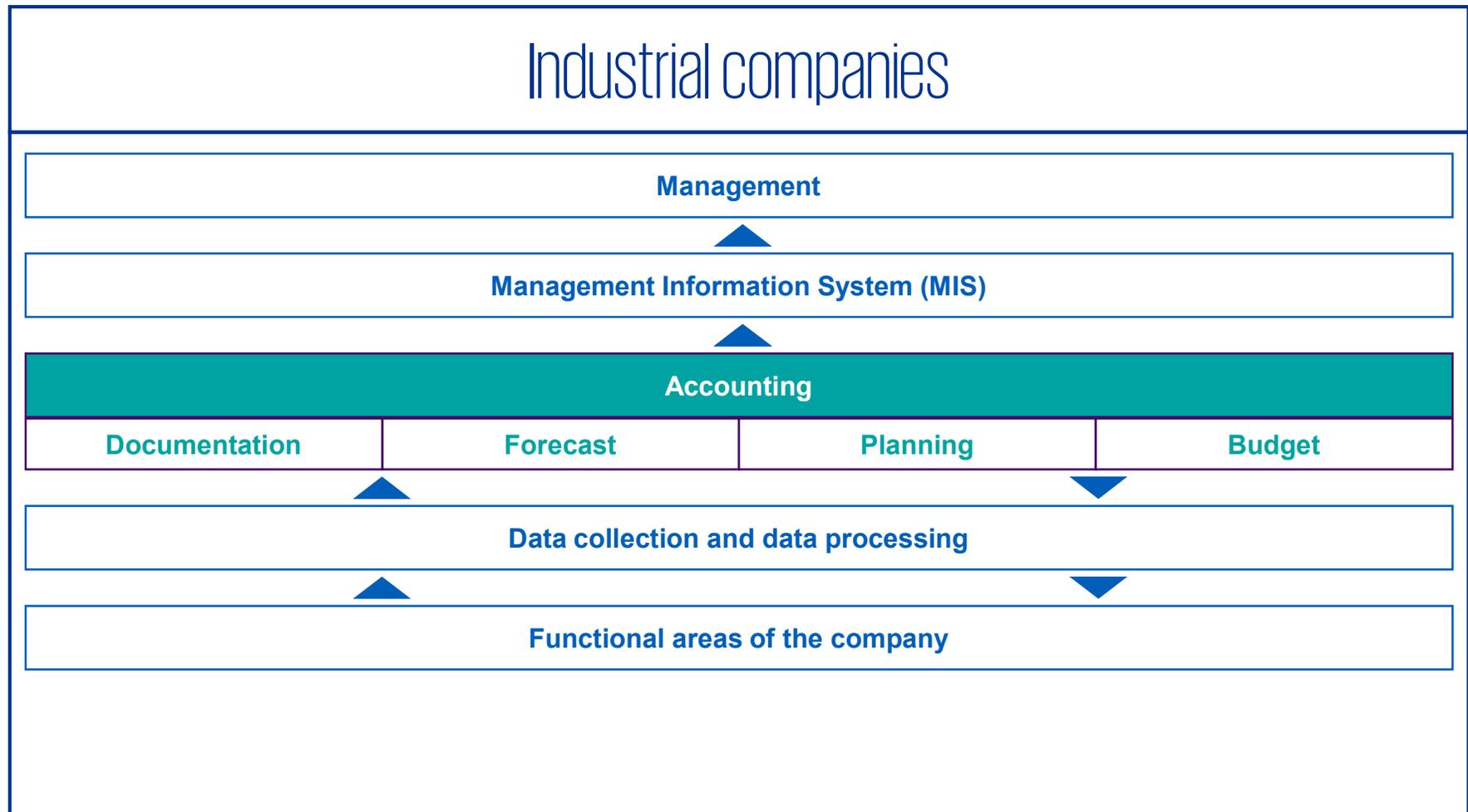
Position of accounting in industrial companies



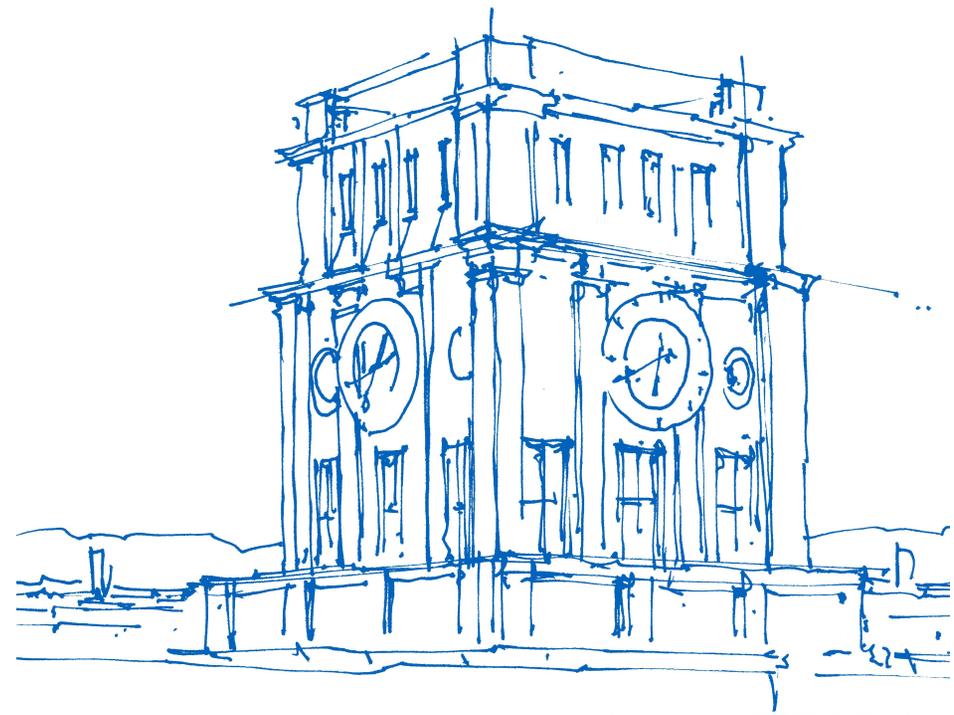
Position of accounting in industrial companies



Position of accounting in industrial companies



1 Basics of accounting



Uhrenturm der TUM

Introduction to Accounting

1

Basics of accounting

2

Basic terms of accounting

3

Basics of financial accounting

Introduction to Accounting

1

Basics of accounting

**Purpose of
accounting**

**Process of
accounting**

**Consequences of
accounting**

**Types of
accounting**

2

Basic terms of accounting

3

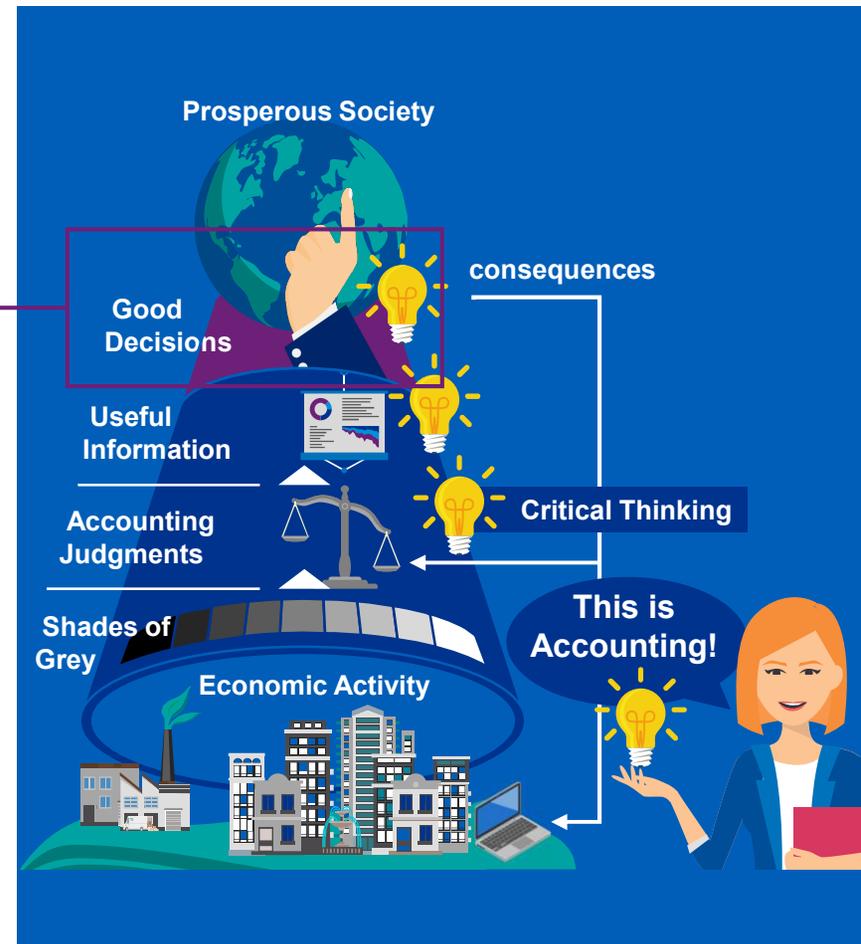
Basics of financial accounting

1.1 Purpose of accounting

Useful information

Purpose of accounting

Provide **useful information** (to stakeholders) for making good decisions (and ultimately increase social welfare).



Source: Prof. Dr. Ernstberger

1.1 Purpose of accounting

Three main purposes of accounting

Valuation roll of accounting

basis for financing of entrepreneurs
(Information about the (ex-ante) prospect of a company)

Stewardship role of accounting

basis for (managing) companies and holding managers accountable
(Information about the (ex-post) performance of a company)

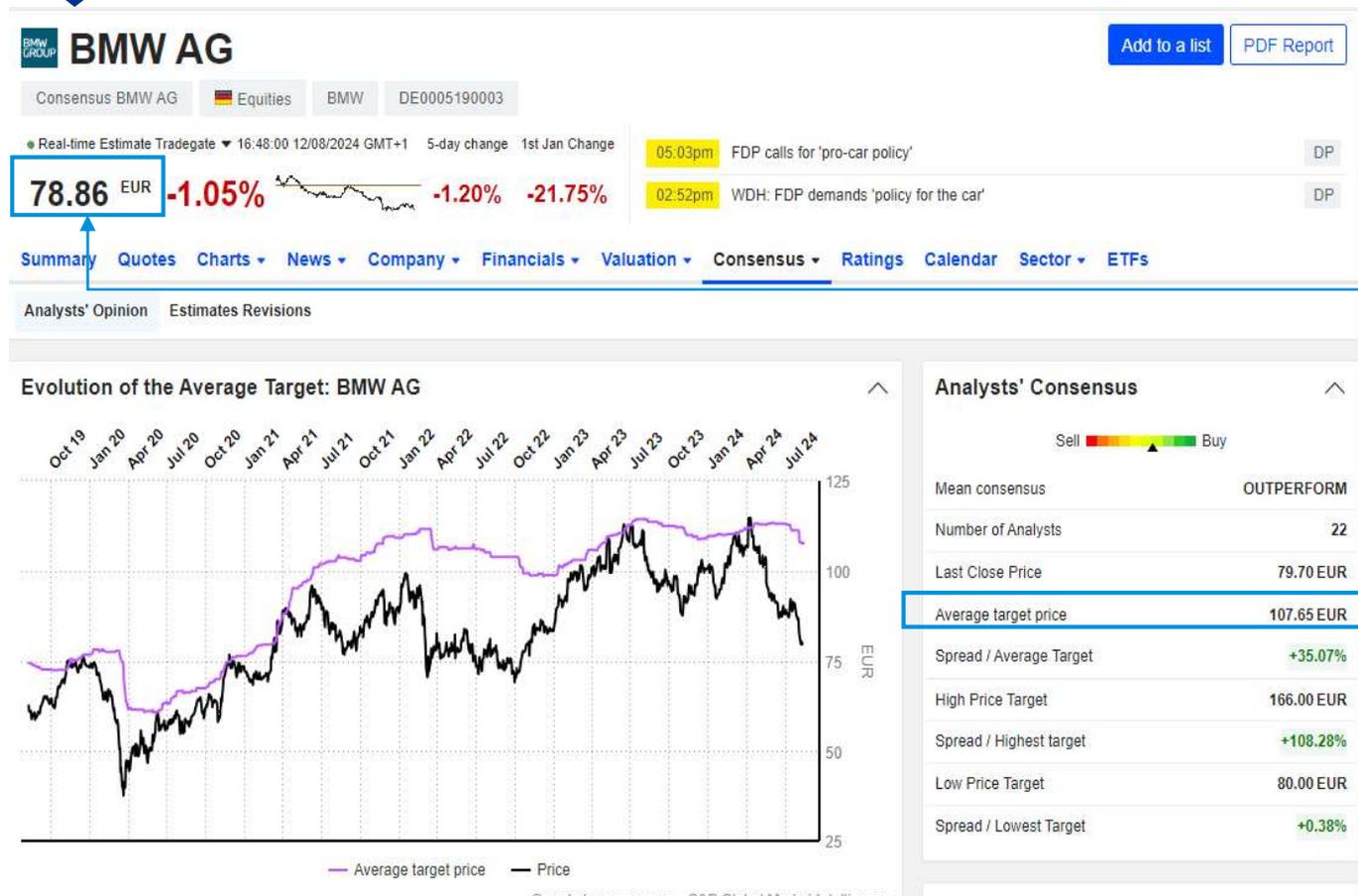
Contracting role of accounting

basis for contracts
(Information for contracts of companies/managers with others)

Source: Prof. Dr. Ernstberger

1.1 Purpose of accounting

Valuation role of accounting

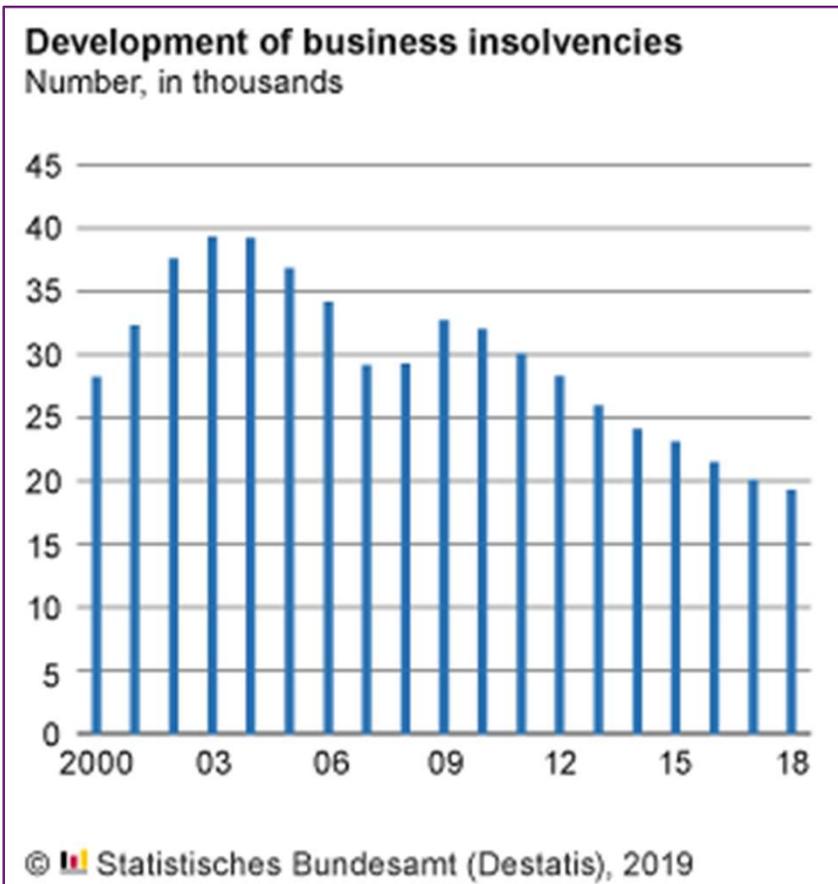


Current price

Target price

1.1 Purpose of accounting

Stewardship role of accounting



Top reasons for insolvencies in Germany:

1. bad accounting (79%),
2. financial underperformance (76%),
3. inadequate debtor management (64%),
4. authoritarian, rigid leadership (57%).

(Source: EH&ZIS)

Source: Prof. Dr. Ernstberger

1.1 Purpose of accounting

Contracting role of accounting



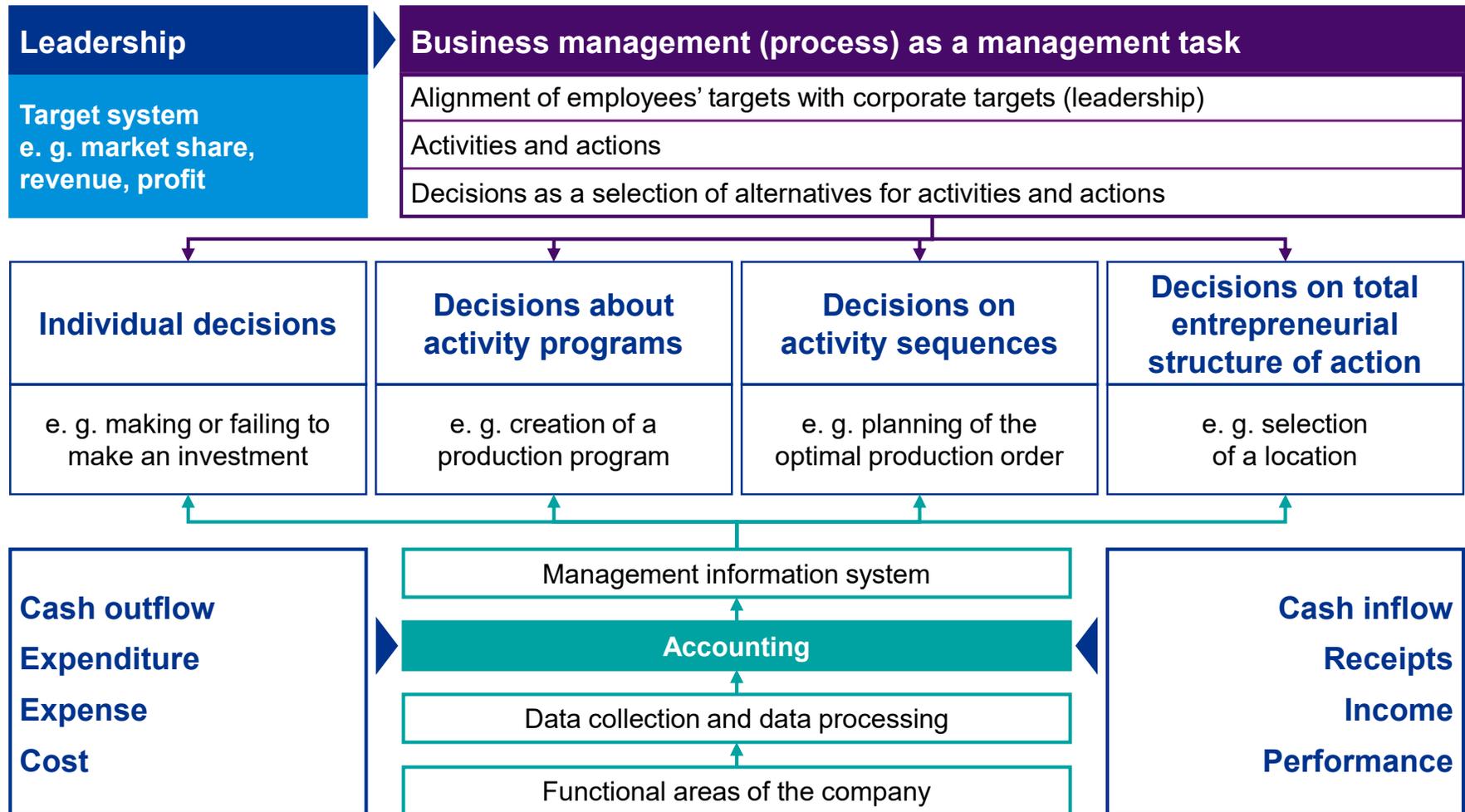
Contracts using accounting figures:

- debt contracts (“covenants”)
- performance-based compensation
- supplier contracts
- royalty contracts
- ...

Source: Prof. Dr. Ernstberger

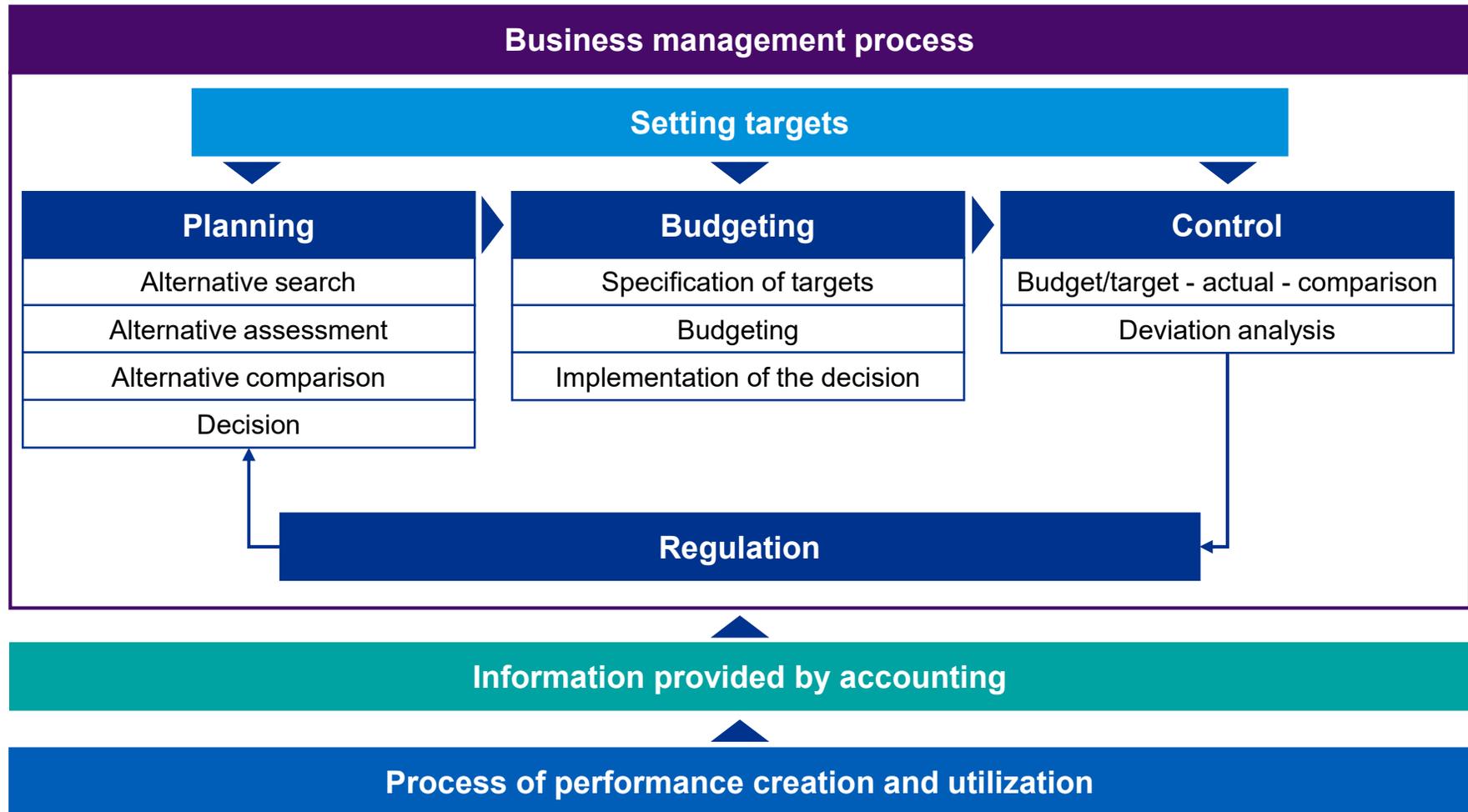
1.1 Purpose of accounting

Accounting as an information system for business management



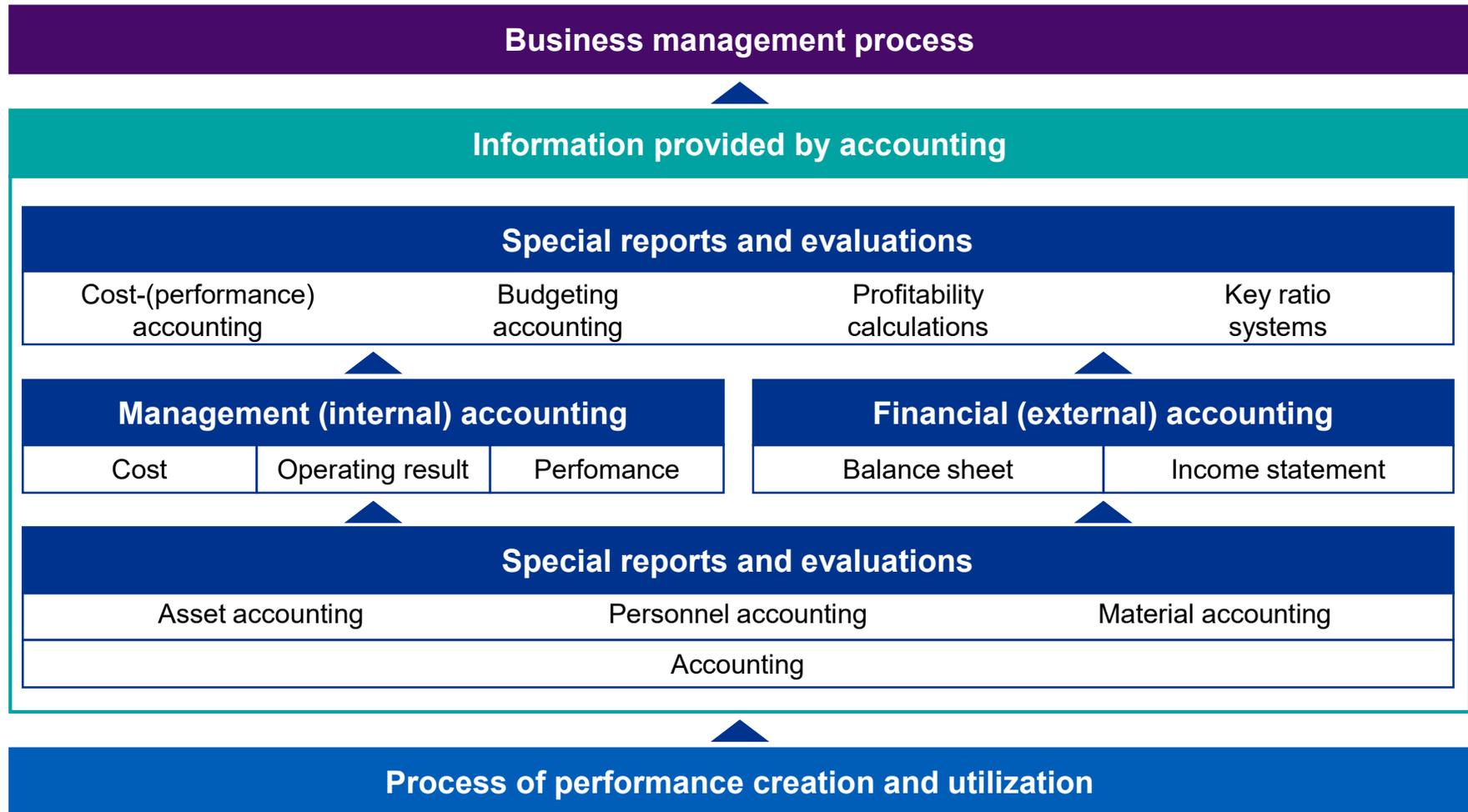
1.1 Purpose of accounting

Relationships between accounting and business management (1/2)



1.1 Purpose of accounting

Relationships between accounting and business management (2/2)



Introduction to Accounting

1

Basics of accounting

Purpose of
accounting

Process of
accounting

Consequences of
accounting

Types of
accounting

2

Basic terms of accounting

3

Basics of financial accounting

1.2 Process of accounting

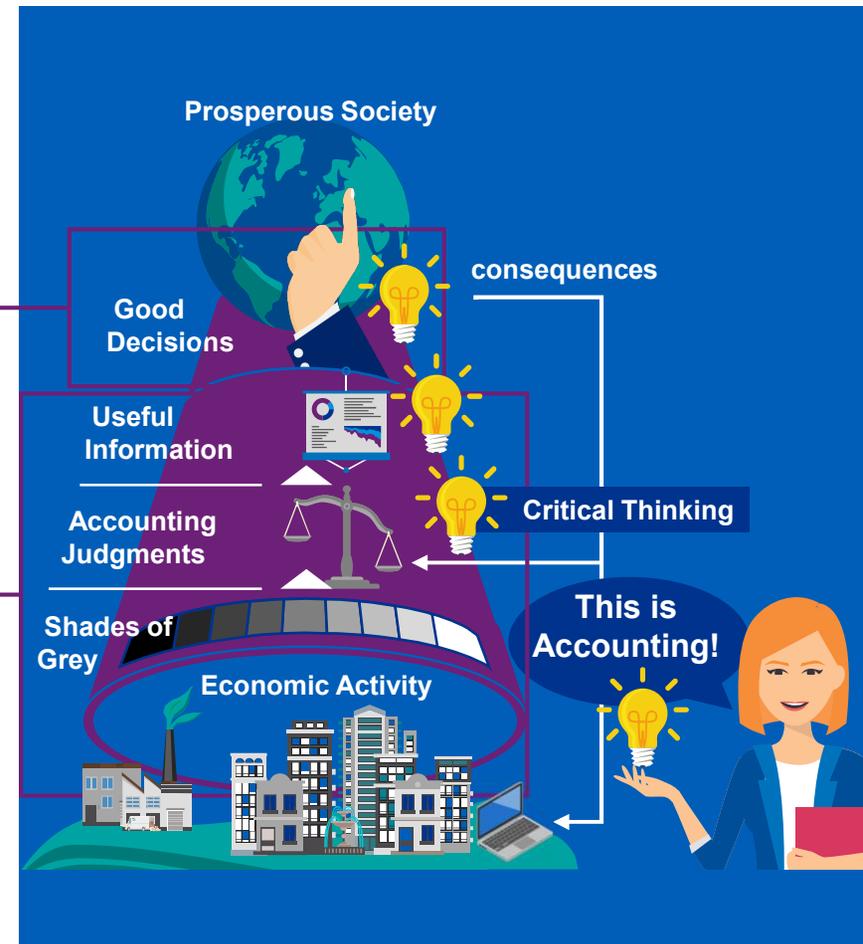
Transforming business transactions into the accounts

Purpose of accounting

Provide **useful information** (to stakeholders) for making good decisions (and ultimately increase social welfare).

Process of accounting

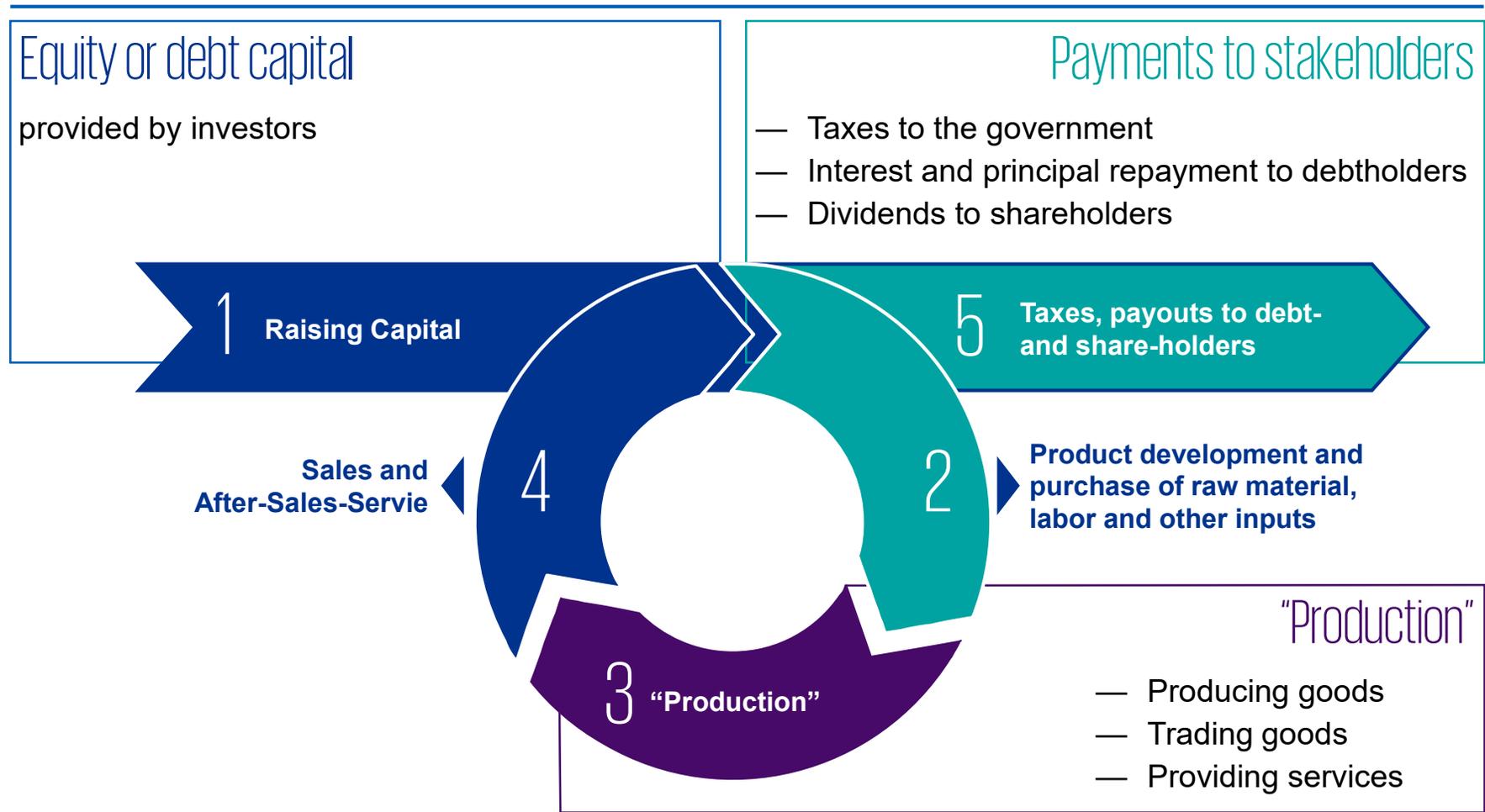
Business transactions are recorded according to rules (which requires judgments) and aggregated information are disseminated to the public.



Source: Prof. Dr. Ernstberger

1.2 Process of accounting

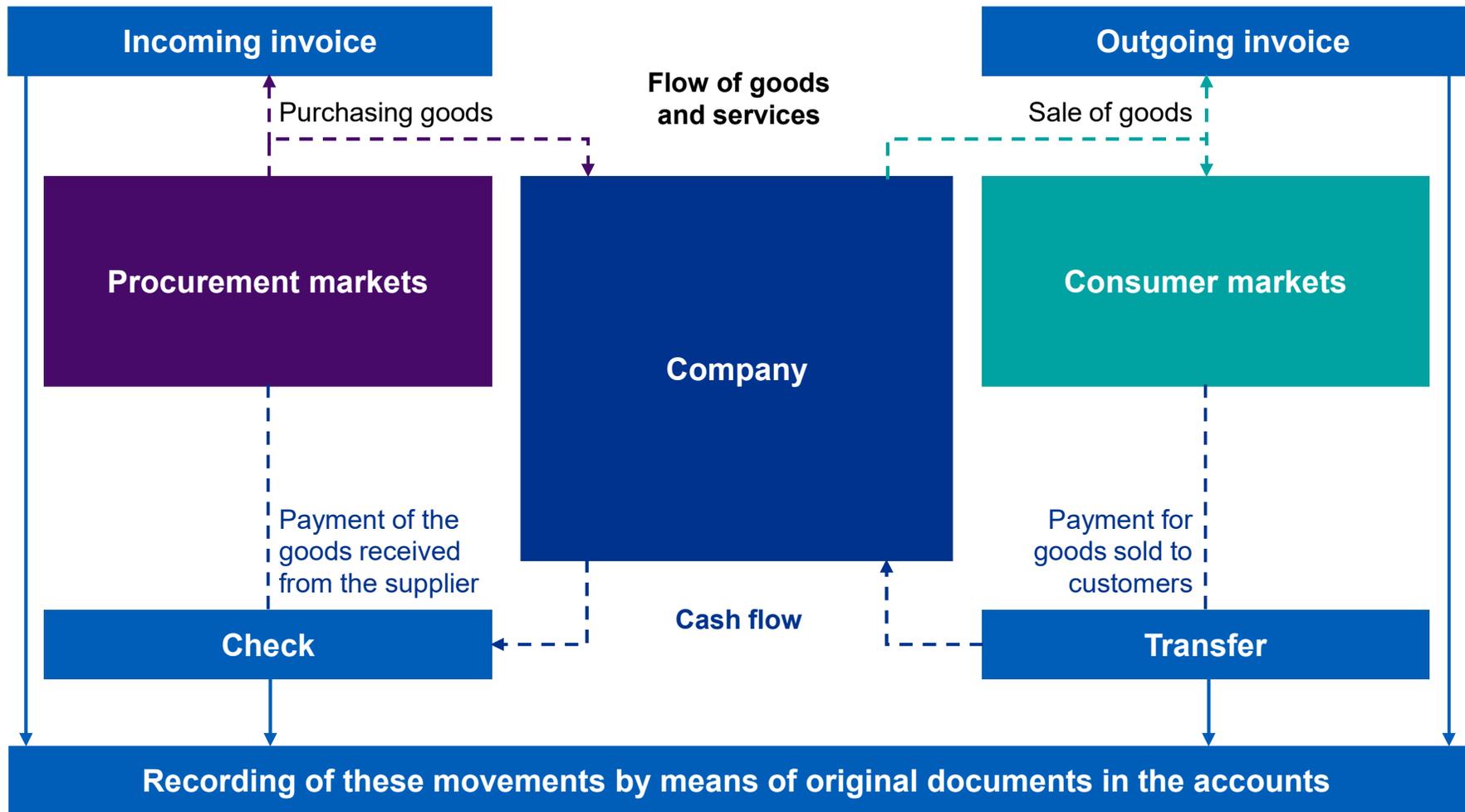
Economic activity



Source: Prof. Dr. Ernstberger

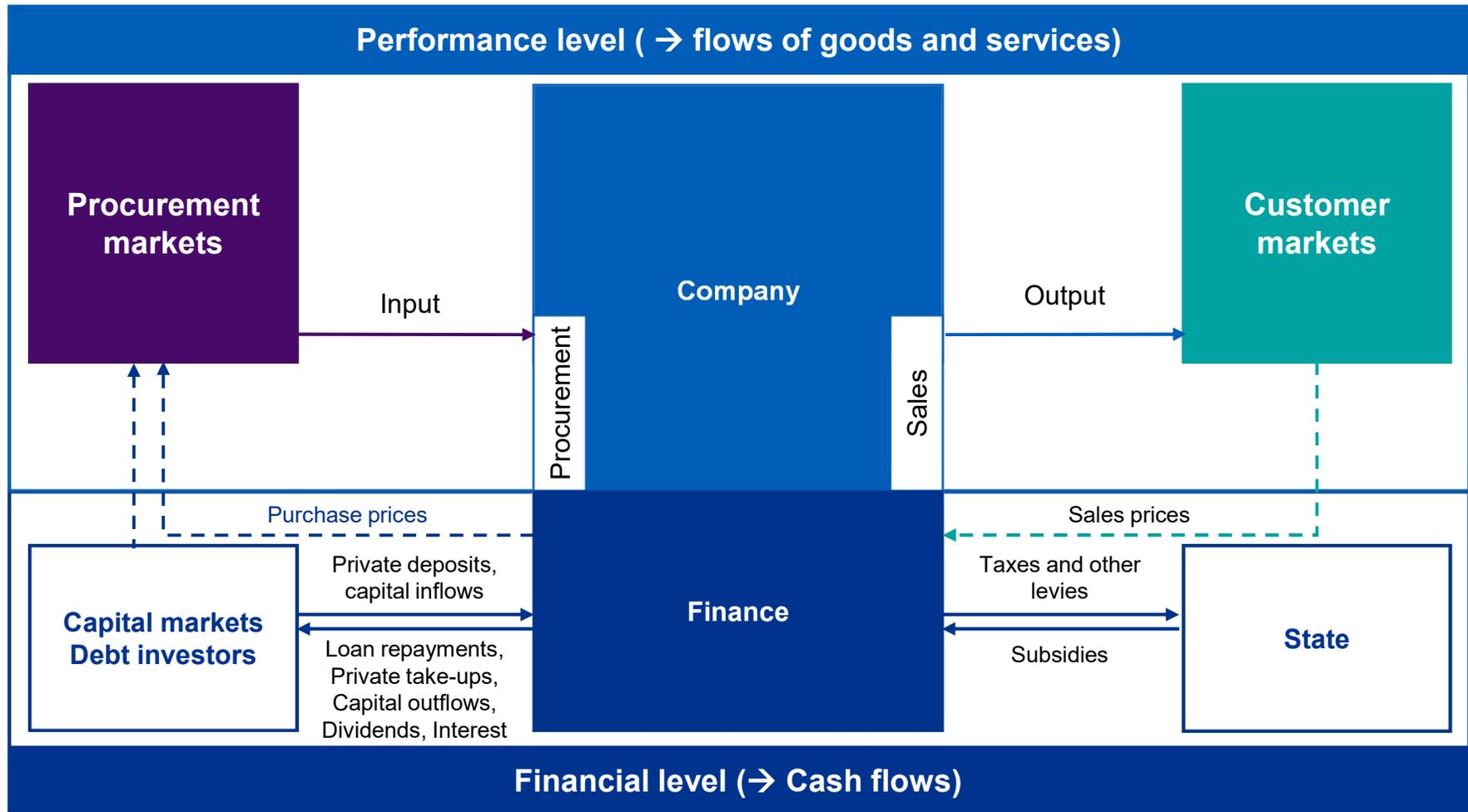
1.2 Process of accounting

Relationship of accounting to the goods and cash cycle



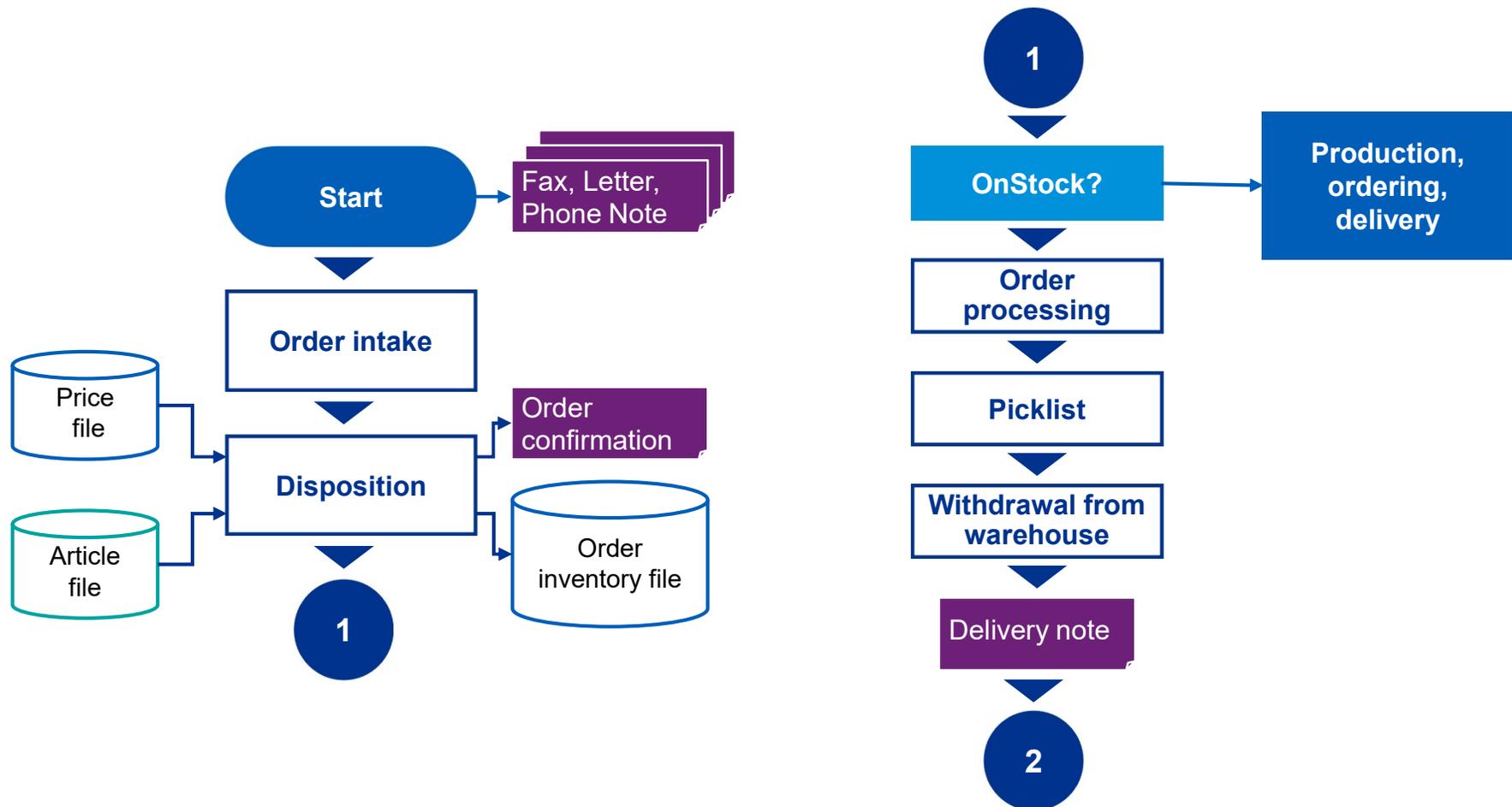
1.2 Process of accounting

Business transaction between a company and its environment



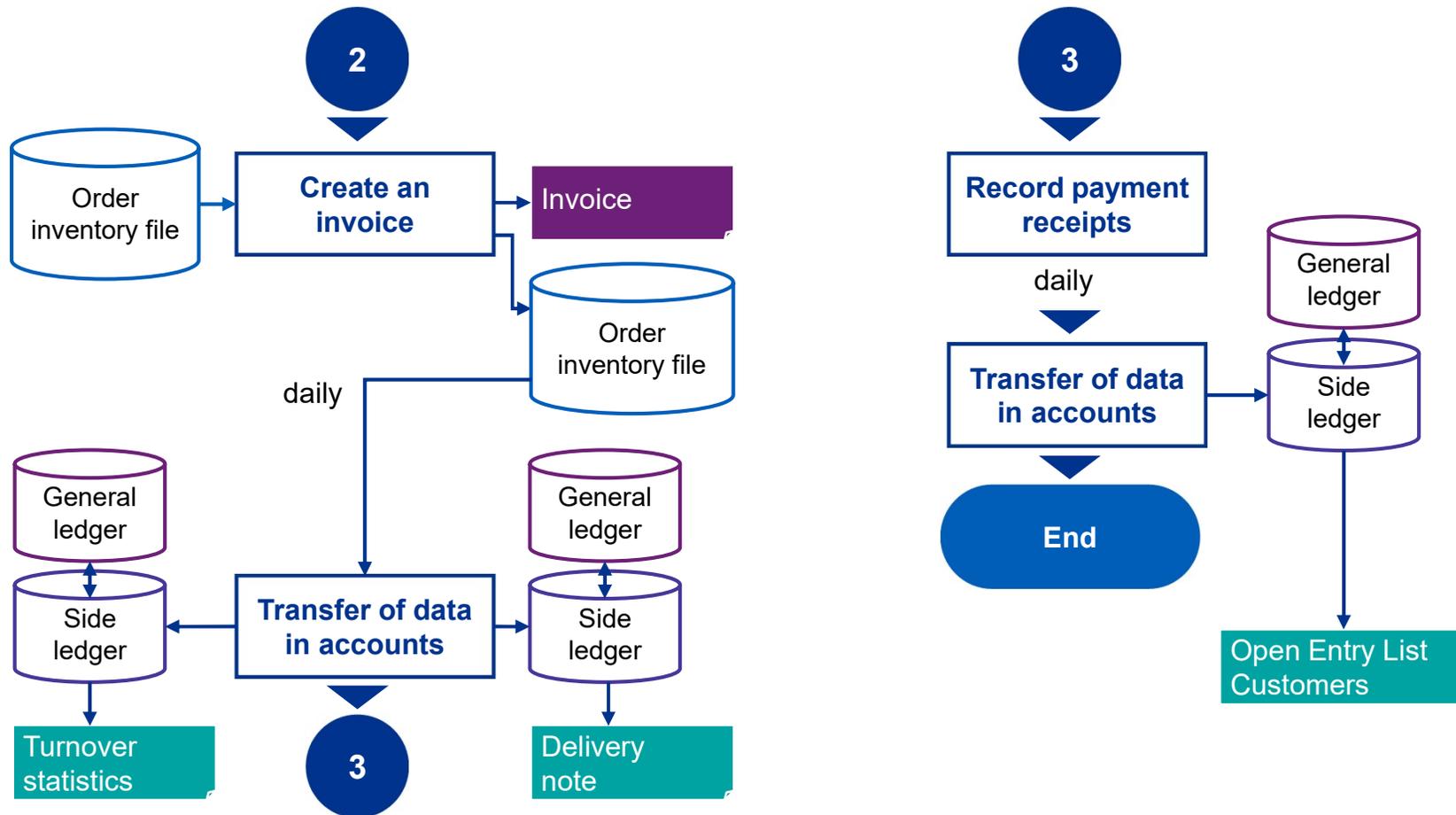
1.2 Process of accounting

Accounting related process: Order - to - Cash (Sales-Cycle) (1/2)



1.2 Process of accounting

Accounting related process: Order - to - Cash (Sales-Cycle) (2/2)



1.2 Process of accounting

Accounting related process: Standard - Processes

Purchase – to – Pay (Purchasing process)

Order – to – Cash (Sales process)

Fixed assets accounting

General ledger

Master Data Management

Introduction to Accounting

1

Basics of accounting

**Purpose of
accounting**

**Process of
accounting**

**Consequences of
accounting**

**Types of
accounting**

2

Basic terms of accounting

3

Basics of financial accounting

1.3 Consequences of accounting

Accounting creates feedback loops to judgements

Purpose of accounting

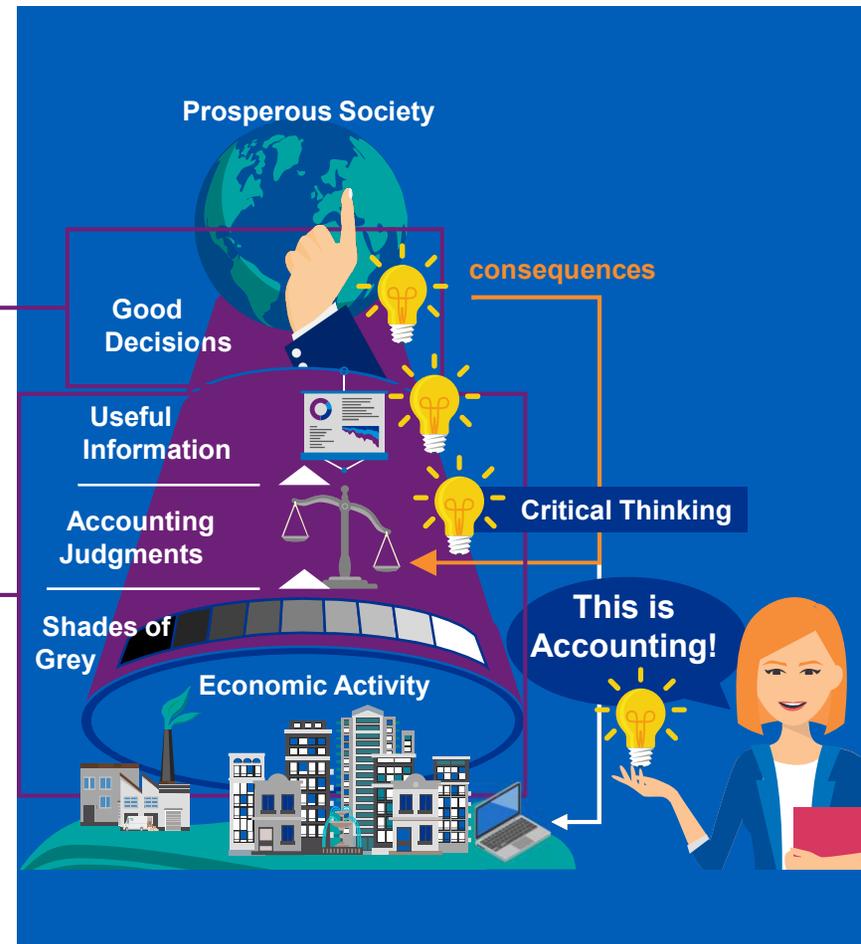
Provide **useful information** (to stakeholders) for making good decisions (and ultimately increase social welfare).

Consequences of accounting (1)

(Expected) accounting based decisions have feedback loops to judgments (**earnings management**).

Process of accounting

Business transactions are recorded according to rules (which requires judgments) and aggregated information are disseminated to the public.



Source: Prof. Dr. Ernstberger

1.3 Consequences of accounting

Earnings management: Definition

-
- “Intentionally influencing the process of financial reporting to obtain some private gain”^(a)
 - Mislead stakeholders about the firm's underlying performance
 - Influence contractual outcomes that depend on reported accounting numbers
 - Not illegal (“within GAAP”) but a “slippery slope” to fraud



Note: (a) Schipper, Katherine. 1989. Commentary on Earnings Management.” Accounting Horizons (December): 91–102.

1.3 Consequences of accounting

Earnings management: Incentives

Performance-based compensation

Bonus payments are often linked to accounting numbers

Raising capital

Window-dressing before Initial public offerings (IPOs), seasoned equity offerings (SEOs)

Meet/beat targets

Analyst forecasts, management forecasts, results of peers, results of last year, no loss to maintain/increase firm valuation and managerial reputation

Avoid debt covenant violations

“At least 30% equity ratio”

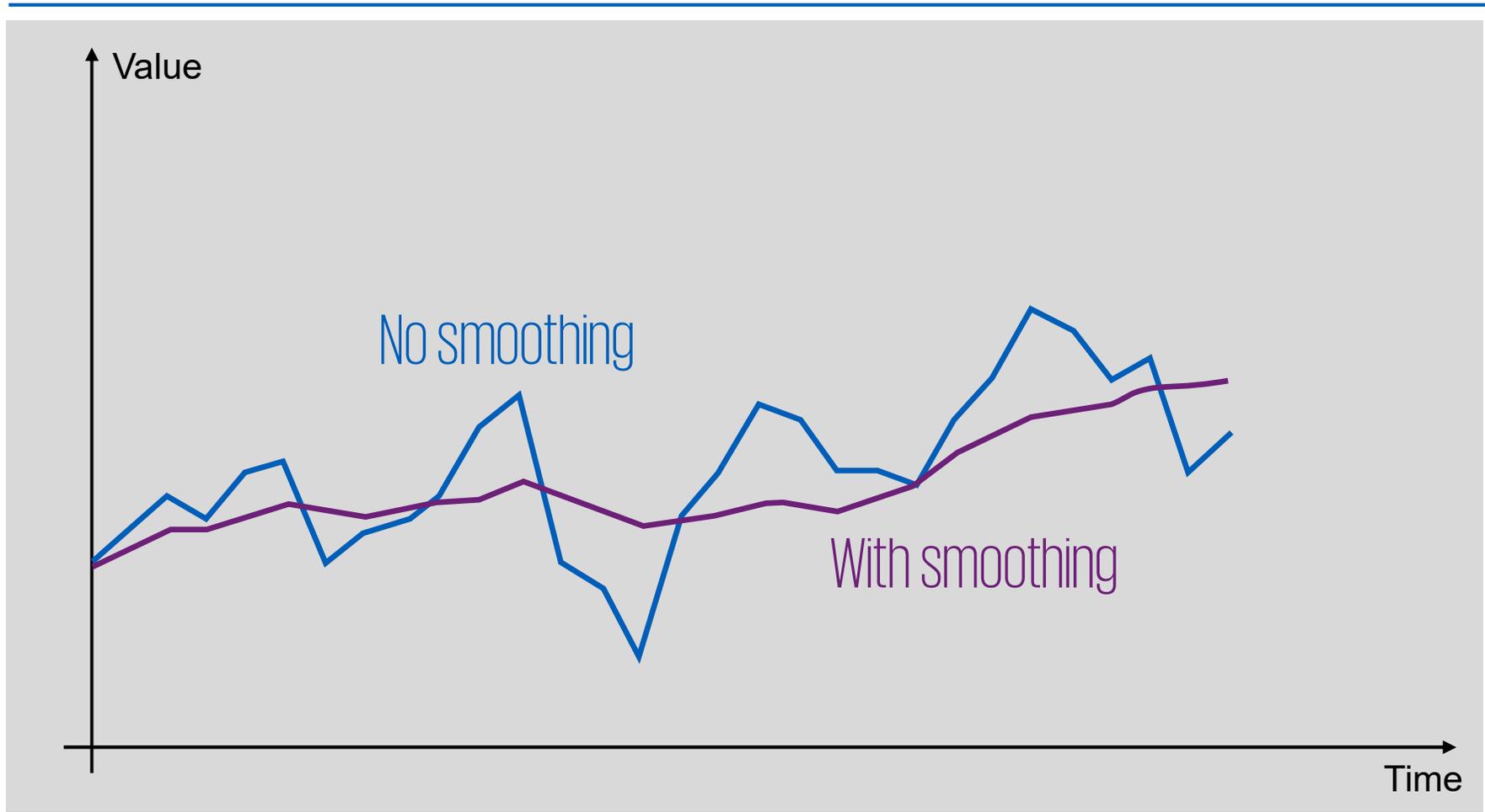
Quiet life

Smooth accounting performance is less burdensome to explain

Source: Prof. Dr. Ernstberger

1.3 Consequences of accounting

Earnings management: Long-term income smoothing

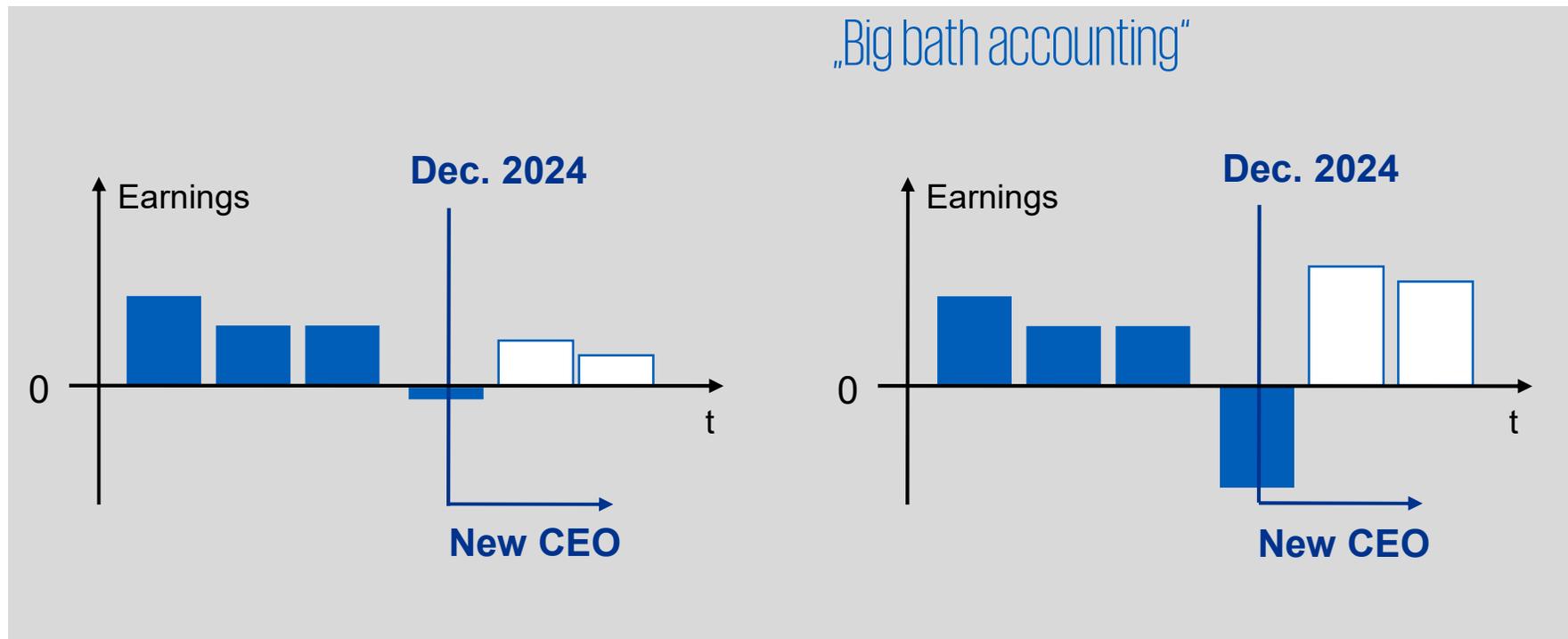


Source: Prof. Dr. Ernstberger

1.3 Consequences of accounting

Earnings management: Case Study

The company Aptera hires a new CEO in December 2024. The earnings for the year 2024 will be a small loss and the forecasts for the following years are small profits. What would an opportunistic manager do using earnings management?



Source: Prof. Dr. Ernstberger

1.3 Consequences of accounting

Earnings management: Counter measures

(Supervisory) board and audit committee

Has to approve the financial statements

Financial Auditors

Independent evaluation of the financial statements whether they comply with rules/standards

Enforcement bodies

“Financial statement police”: DPR/BaFin in Germany or SEC in the US

Other corporate governance mechanisms

Internal audit function etc.

Source: Prof. Dr. Ernstberger

1.3 Consequences of accounting

Accounting creates feedback loops to judgements

Purpose of accounting

Provide **useful information** (to stakeholders) for making good decisions (and ultimately increase social welfare).

Consequences of accounting (1)

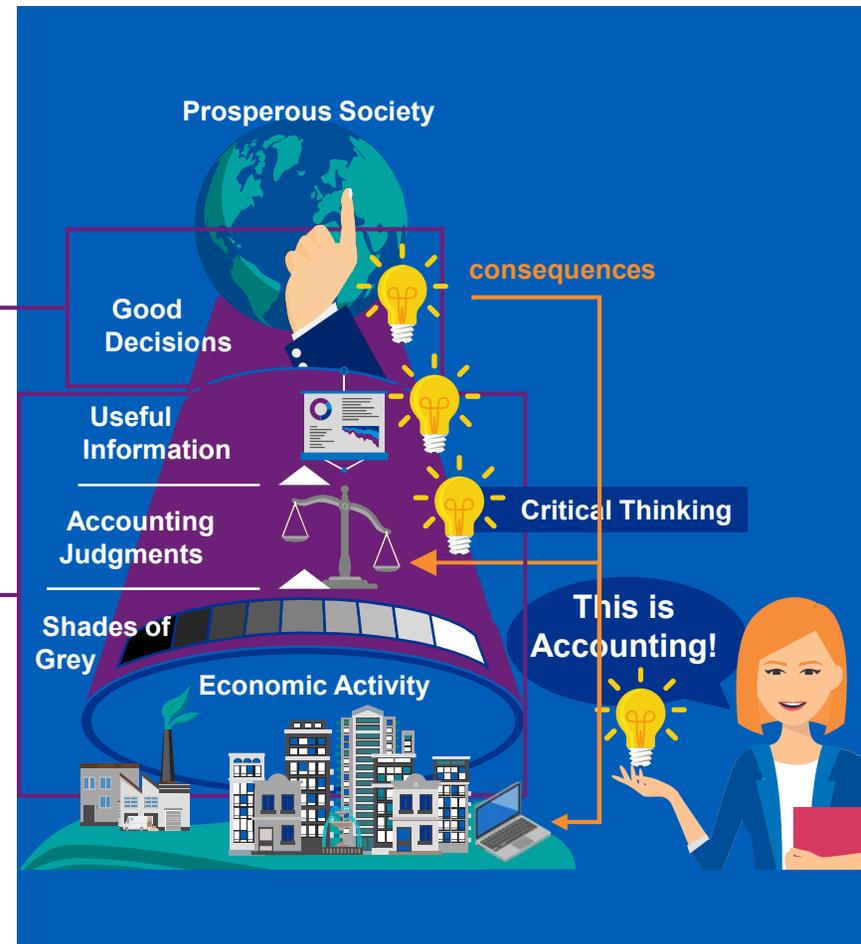
(Expected) accounting based decisions have feedback loops to judgments (**earnings management**).

Consequences of accounting (2)

(Expected) accounting based decisions have feedback loops to economic actions (**real effects**).

Process of accounting

Business transactions are recorded according to rules (which requires judgments) and aggregated information are disseminated to the public.



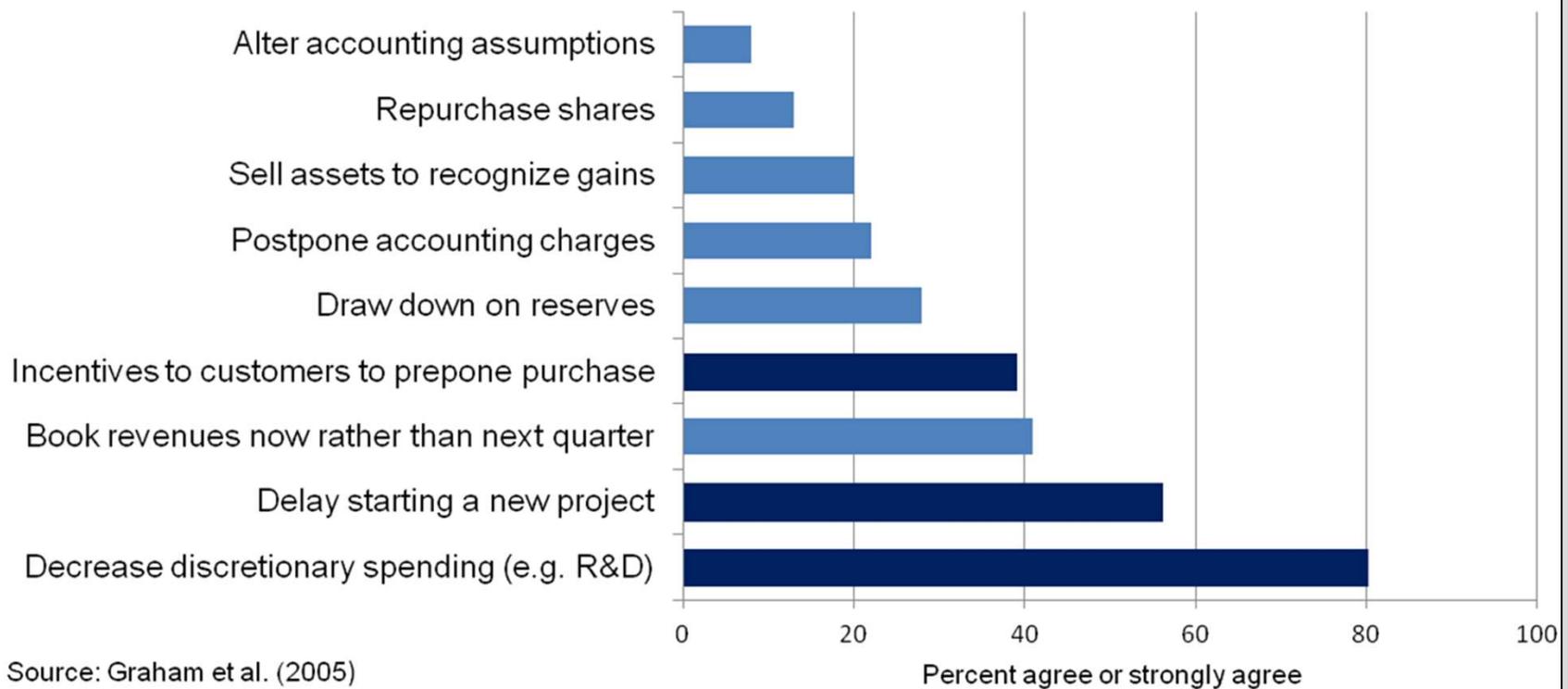
Source: Prof. Dr. Ernstberger

1.3 Consequences of accounting

Example: survey of CFOs in the US

Question:

"Near the end of the quarter, it looks like your company might come in below the desired earnings target. Within what is permitted by GAAP, which of the following choices might your company make?"



Source: Graham et al. (2005)

Source: (a) Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. Journal of accounting and economics, 40(1-3), 3-73.

Introduction to Accounting

1

Basics of accounting

Purpose of
accounting

Process of
accounting

Consequences of
accounting

Fields of
accounting

2

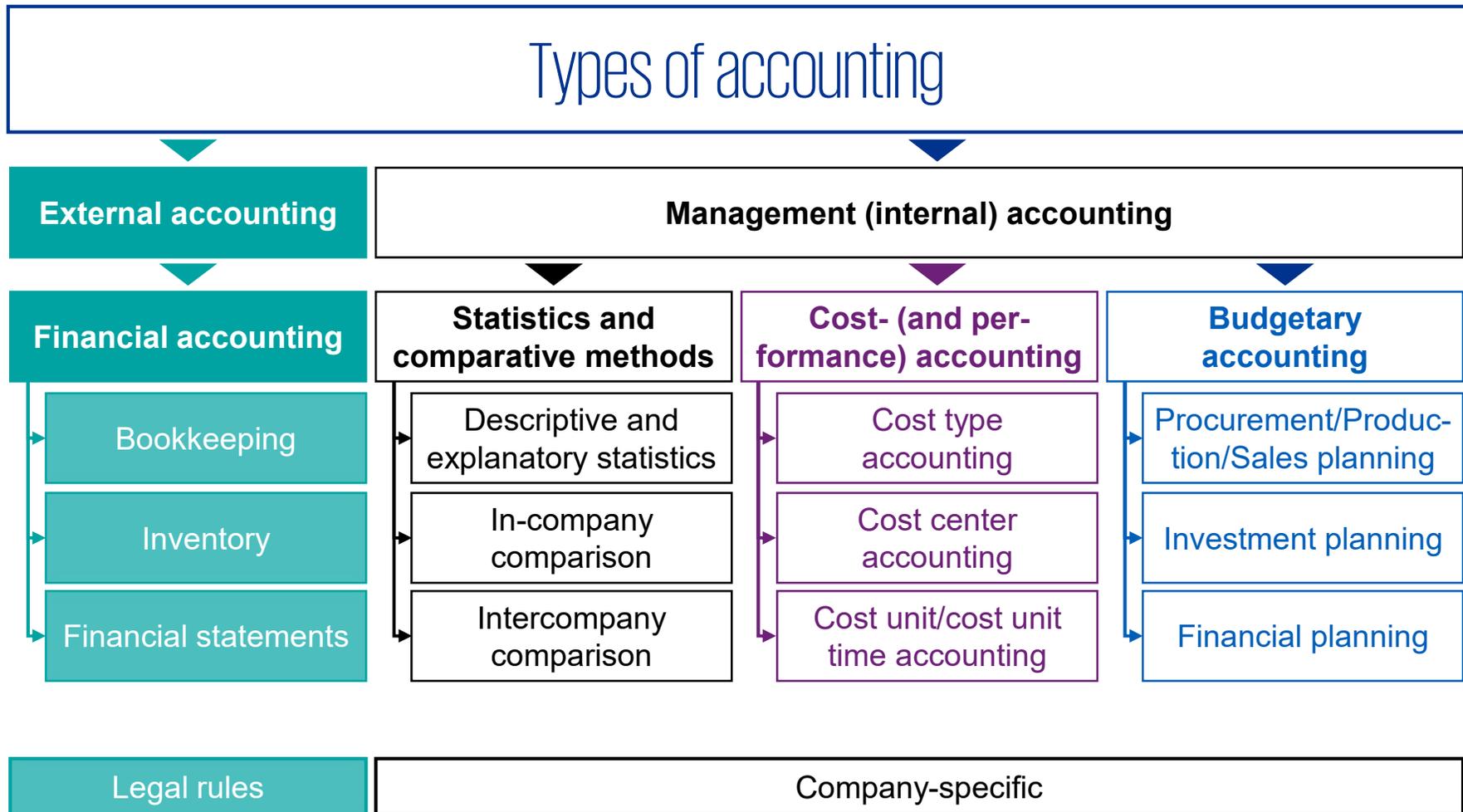
Basic terms of accounting

3

Basics of financial accounting

1.4 Types of accounting

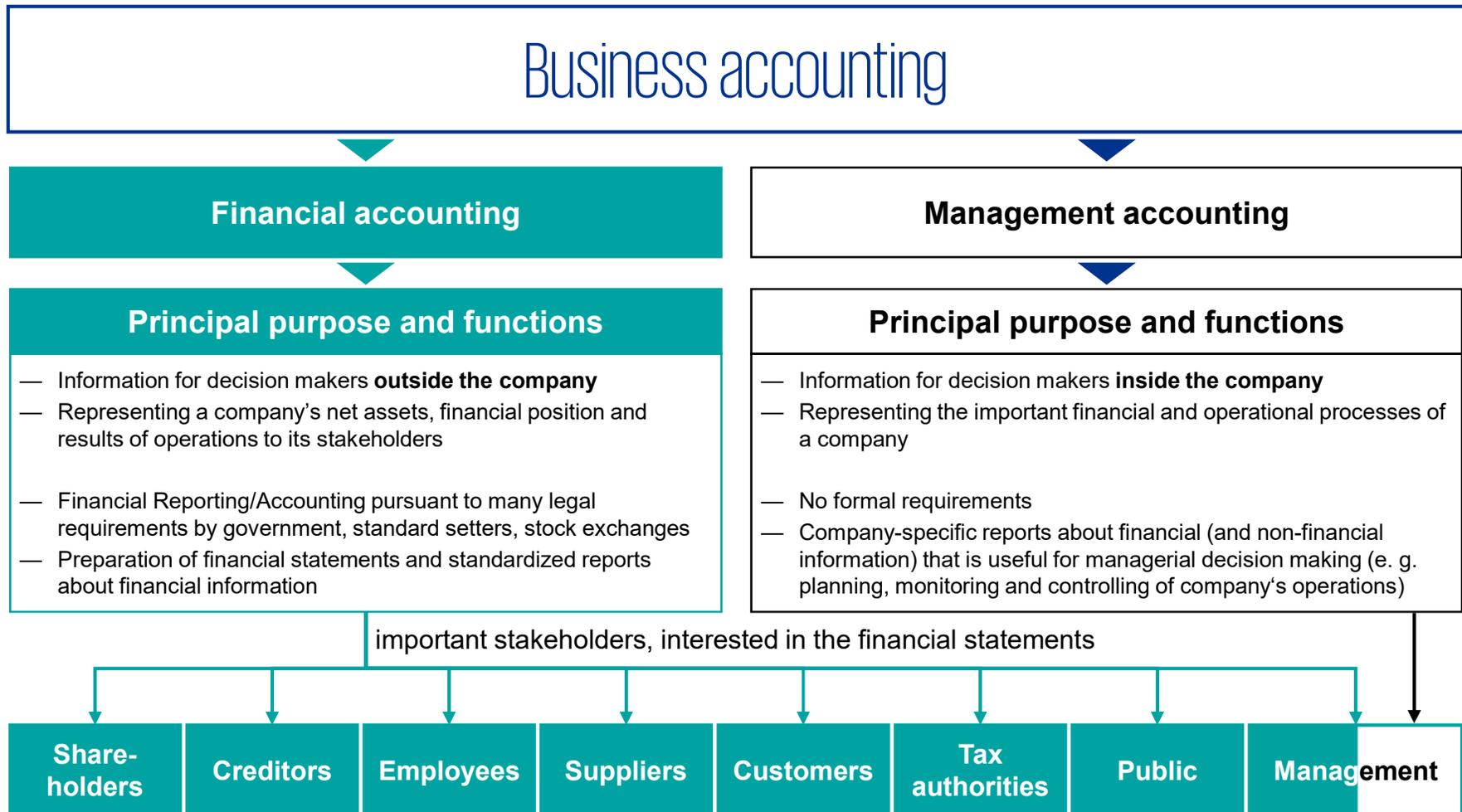
Overview



Types of accounting	
1. Financial accounting	Financial accounting
2. Management accounting	Management accounting
3. Internal control systems	Internal control systems
4. Cost accounting	Cost accounting
5. Budgeting	Budgeting
6. Performance evaluation	Performance evaluation
7. Tax accounting	Tax accounting
8. Environmental accounting	Environmental accounting
9. Sustainability accounting	Sustainability accounting
10. Social accounting	Social accounting

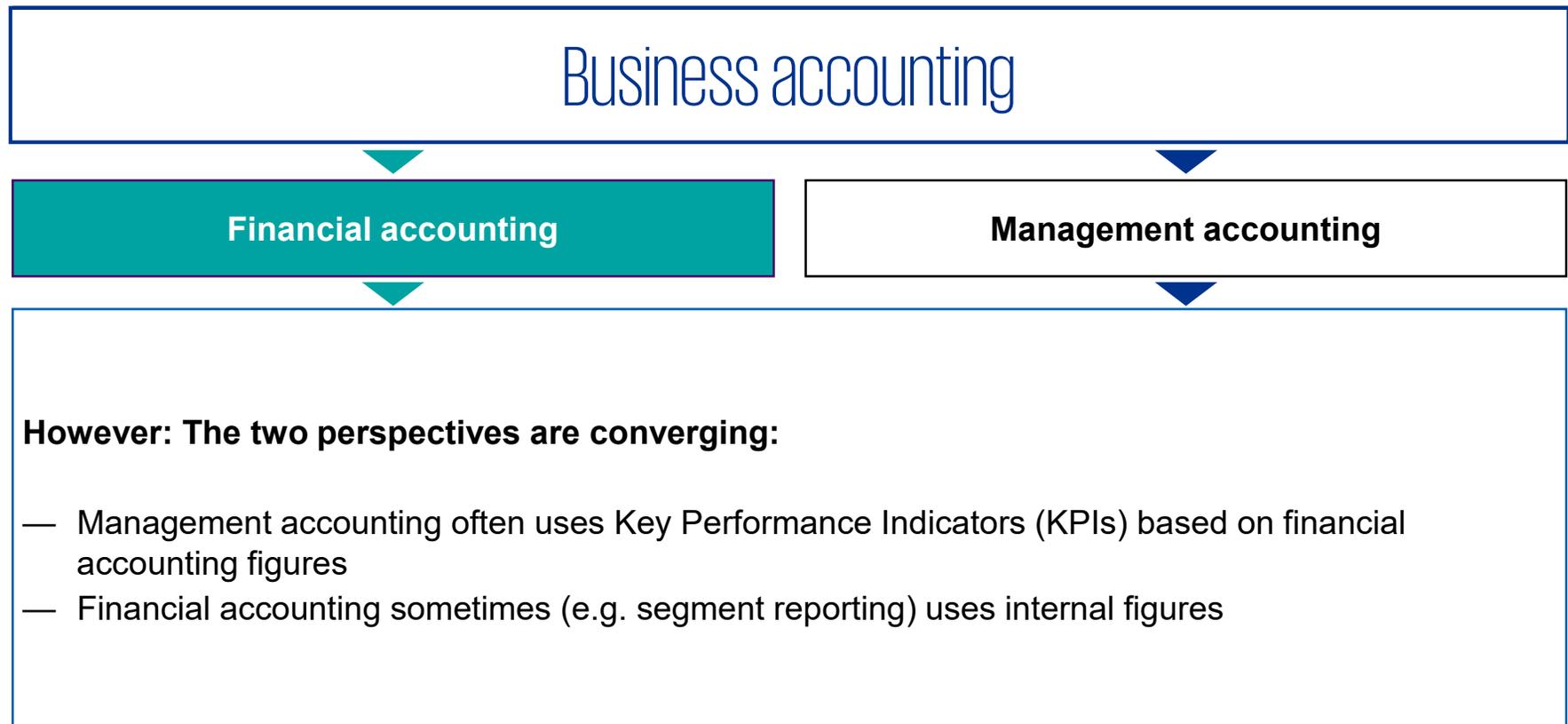
1.4 Types of accounting

Financial vs. management accounting



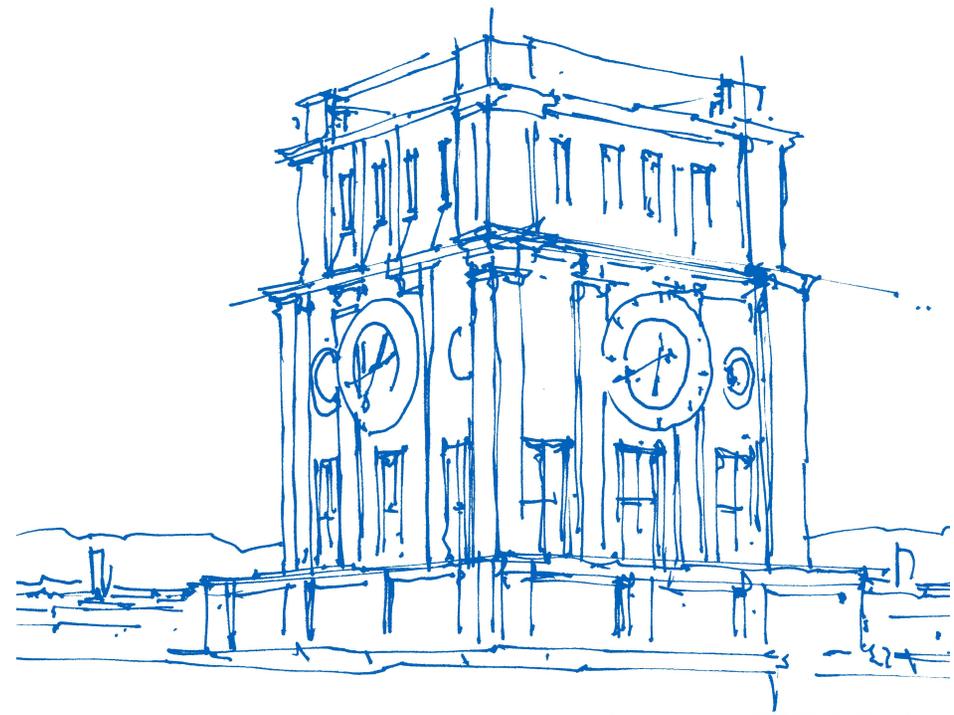
1.4 Types of accounting

Financial vs. management accounting



2

Basic terms of accounting



Uhrenturm der TUM

2 Basic terms of accounting

Overview

Introduction to Accounting

1

Basics of accounting

2

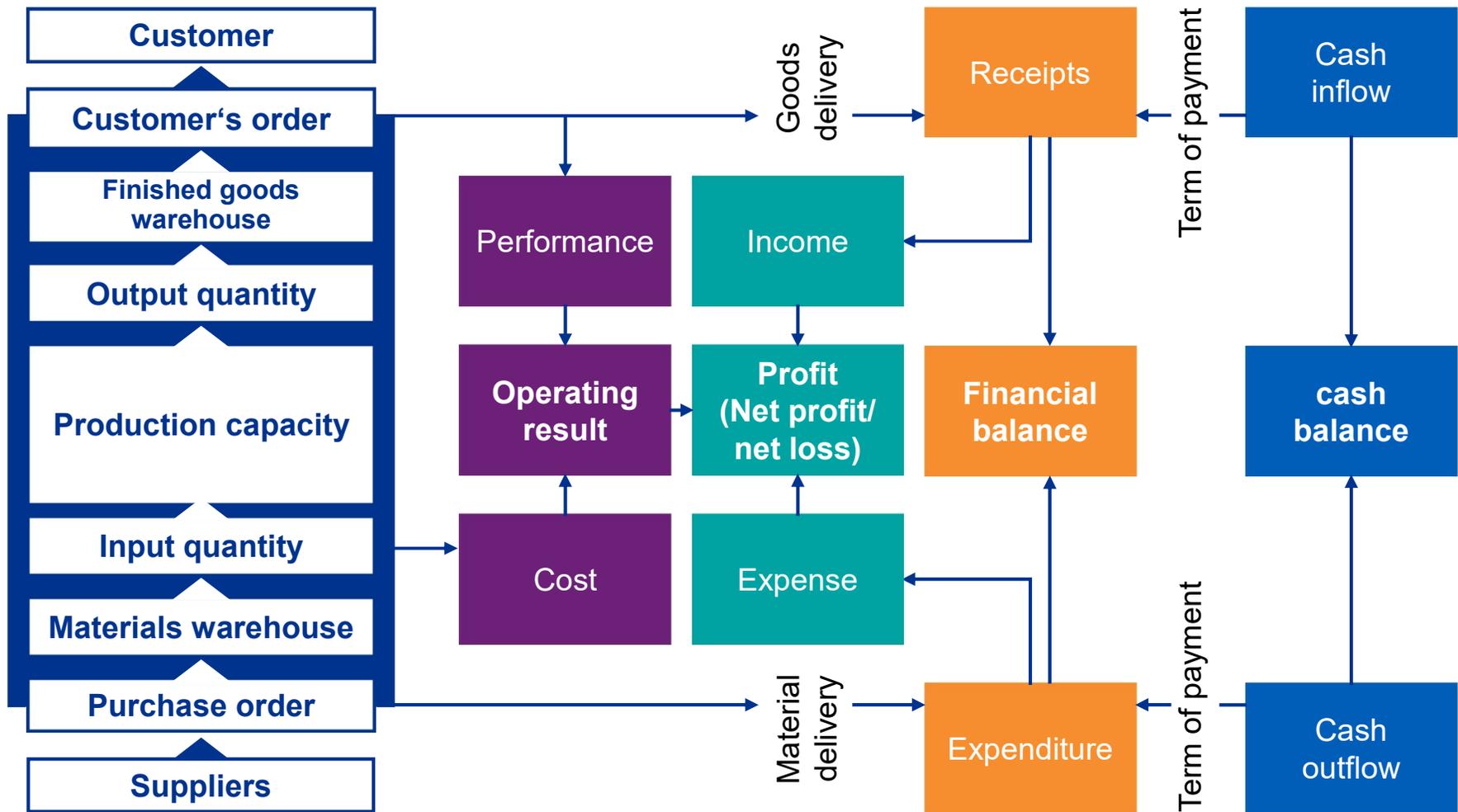
Basic terms of accounting

3

Basics of financial accounting

2 Basic terms of accounting

Accounting and company processes



2 Basic terms of accounting

Central questions of the stakeholders

Types of accounting	Flow values	Level of information	Central questions
Financial planning	+ Cash-inflows - Cash-outflows	Increase and decrease of cash and cash equivalents of the period	Is the future solvency secured?
Investment planning	+ Cash-inflows - Cash-outflows	Present value	Are the planned or realized investments profitable?
Financial accounting	+ Income - Expenses	Changes in net assets of the period	How successful has the company performed within the last period
Cost- (and performance) accounting	+ Performance - Costs	Operating profit	How beneficial are individual measures in the short-run?

2 Basic terms of accounting

Definitions

Cash-outflow	▶ Cash and cash equivalents that are spent by the company within a period. Every cash-outflow decreases the amount of cash on hand and cash in banks. (= total of cash and cash equivalents).
Cash-inflow	▶ Cash and cash equivalents that flow directly to the company within a period. Every cash-inflow increases the amount of cash on hand and cash in banks.
Expenditure	▶ Monetary value of a company's acquired economic goods ^(a) within a period. Regardless whether the cash-outflows are made in the previous or following years.
Receipts	▶ Monetary value of a company's delivered economic goods ^(a) within a period. Regardless whether the cash-inflows are made in the previous or following years.
Expense	▶ Expenses are expenditures periodised and net income affecting. The period expense equals the amount of all consumed respectively used economic goods within that period.
Income	▶ Income are receipts periodised and net income affecting. The period income equals the amount of the realized increase in value within that period.
Cost	▶ Monetarily assessed consumption of goods and services due to providing goods and services.
Performance	▶ Monetarily assessed increase in value due to providing goods and services.

Note: (a) Per definition an economic good needs to have a demand for it and a shortage of that good occurs. This is true for most of all goods.

2 Basic terms of accounting

Distinction of cash outflow and expenditure

Cash outflow of the period			
Cash outflow but no expenditure		Cash outflow and expenditure at once	
<p>Cash outflows that led to expenditures within a prior period</p> <p>E.g.: Paying an invoice statement concerning the delivery of raw materials from a prior period</p>	<p>Cash outflows that will lead to expenditures within a future period</p> <p>E.g.: Prepayments for raw materials that will be delivered within a future period</p>	<p>Cash outflows that lead to expenditures within the same period</p> <p>E.g.: Cash purchase of raw materials</p>	
	<p>Expenditures that can be derived from cash outflows of the same period</p> <p>E.g.: Cash purchase of raw materials</p>	<p>Expenditures that can be derived from cash outflows of a prior period</p> <p>E.g.: Delivery of goods that have been paid within a prior period</p>	<p>Expenditures that will lead to cash outflows within a future period</p> <p>E.g.: Purchase of goods on credit</p>
	Expenditure and cash outflow at once	Expenditure but no cash outflow	
Expenditure of the period			

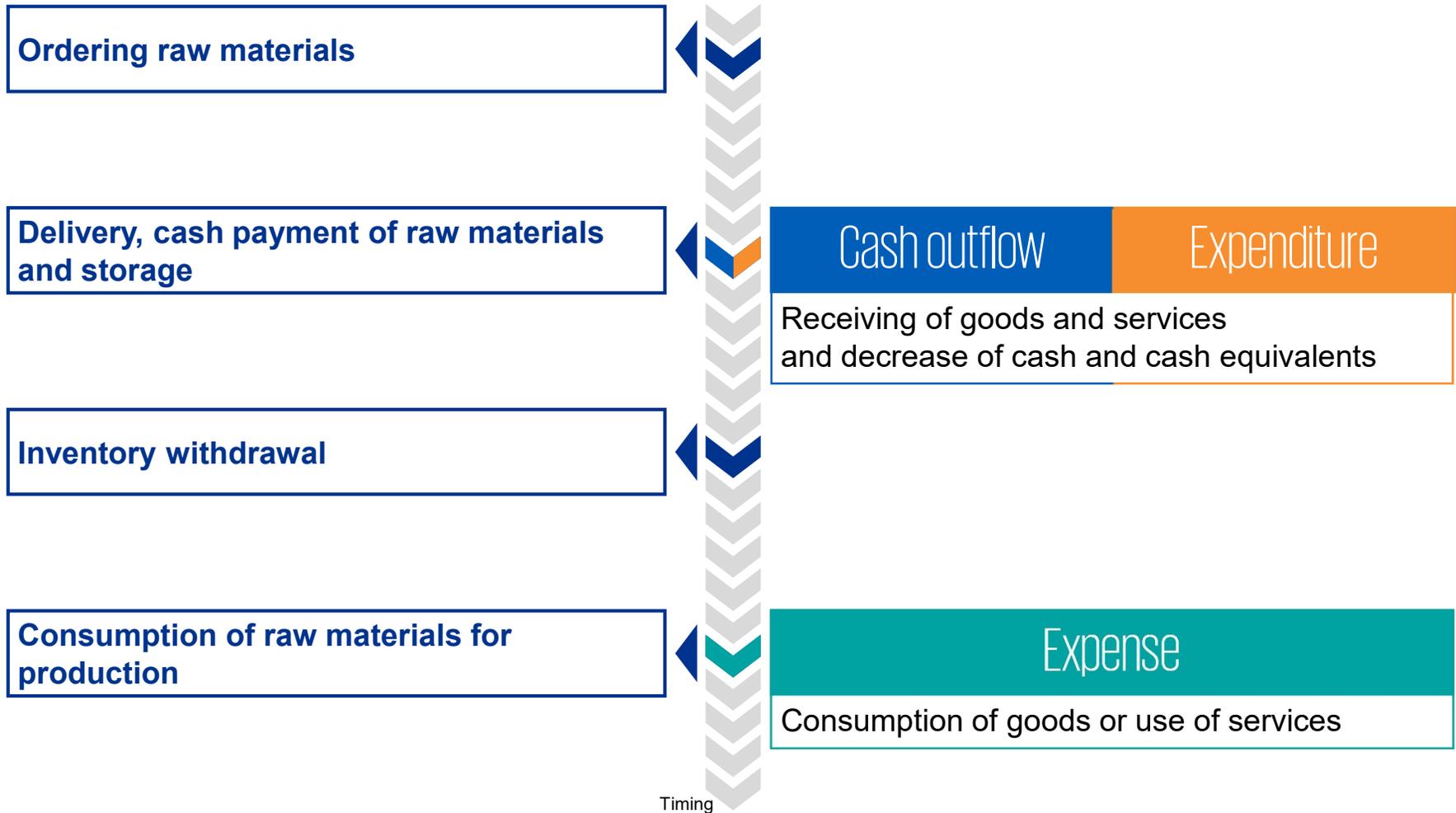
2 Basic terms of accounting

Distinction of expenditure and expense

Expenditure of a period			
Expenditure but no expense	Expenditure and expense at once		
<p>Expenditures that will lead to expenses in future periods</p> <p>E.g.: Purchase of raw materials that will be used within a future period</p>	<p>Expenditures that will lead to expenses within the same period</p> <p>E.g.: Usage of raw materials that have been purchased within the same period</p>		
	<p>Expenses that lead to expenditures within the same period</p> <p>E.g.: Consumption of raw materials that have been purchased within the same periode</p>	<p>Expenses that can be derived from expenditures of a prior periods</p> <p>E.g.: Depreciation of a machine that was purchased within a prior period</p>	<p>Expenses that will lead to expenditures within a future period</p> <p>E.g.: Accrual of provisions</p>
	Expense and expenditure at once	Expense but no expenditure	
Expense of the period			

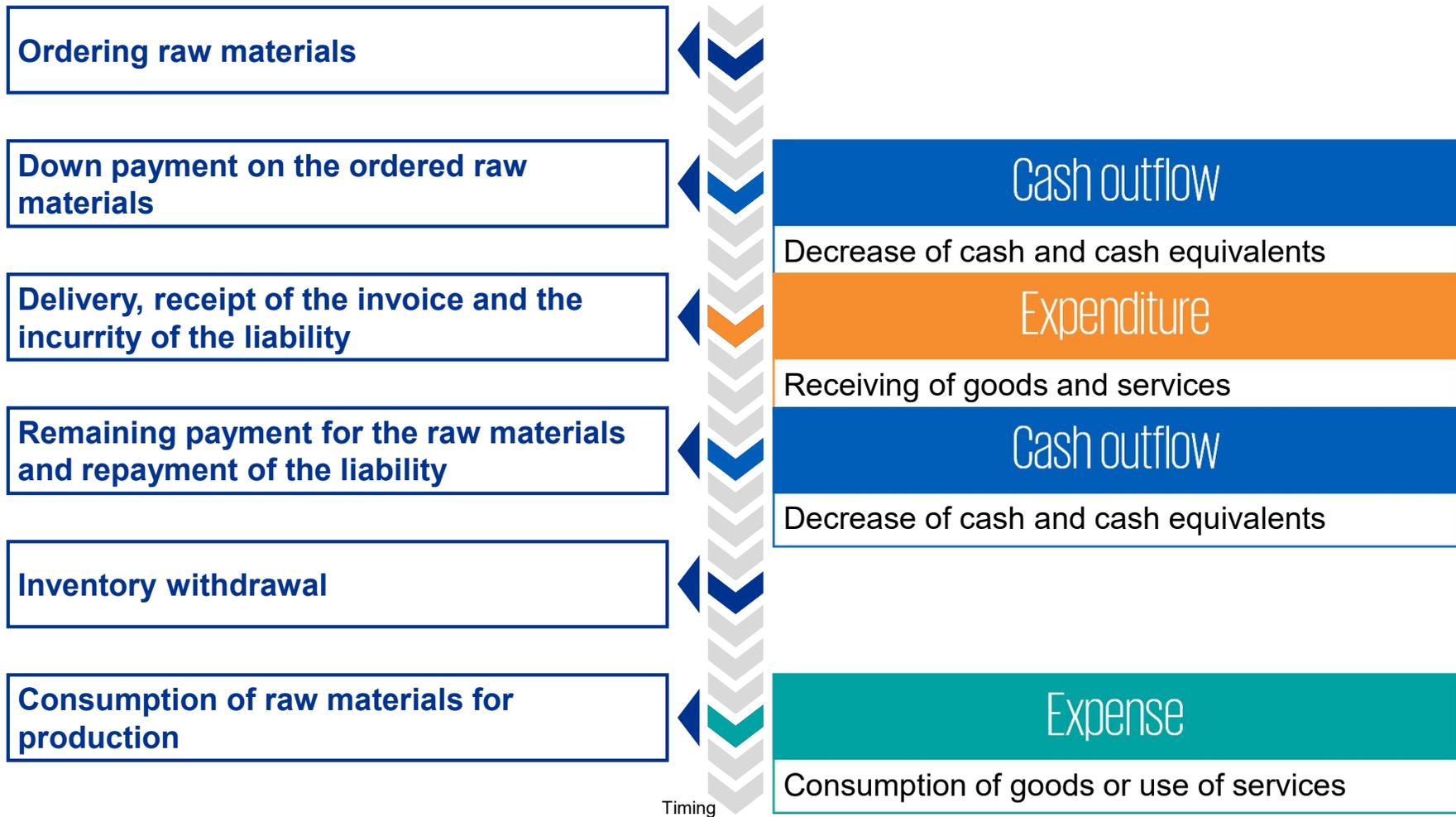
2 Basic terms of accounting

Example 1: Purchase - to - Pay (Purchasing cycle)



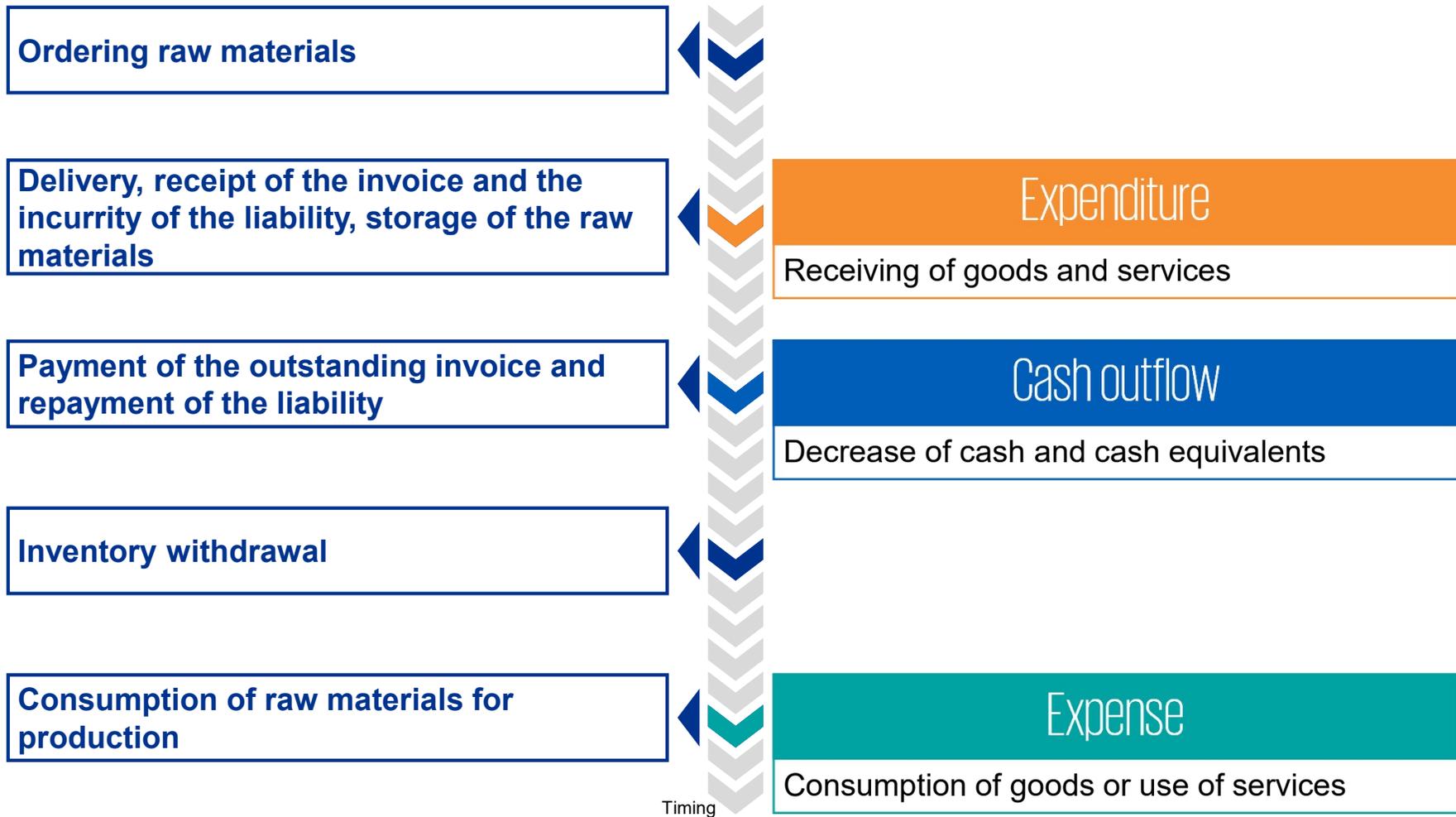
2 Basic terms of accounting

Example 2: Purchase - to - Pay (Purchasing cycle)



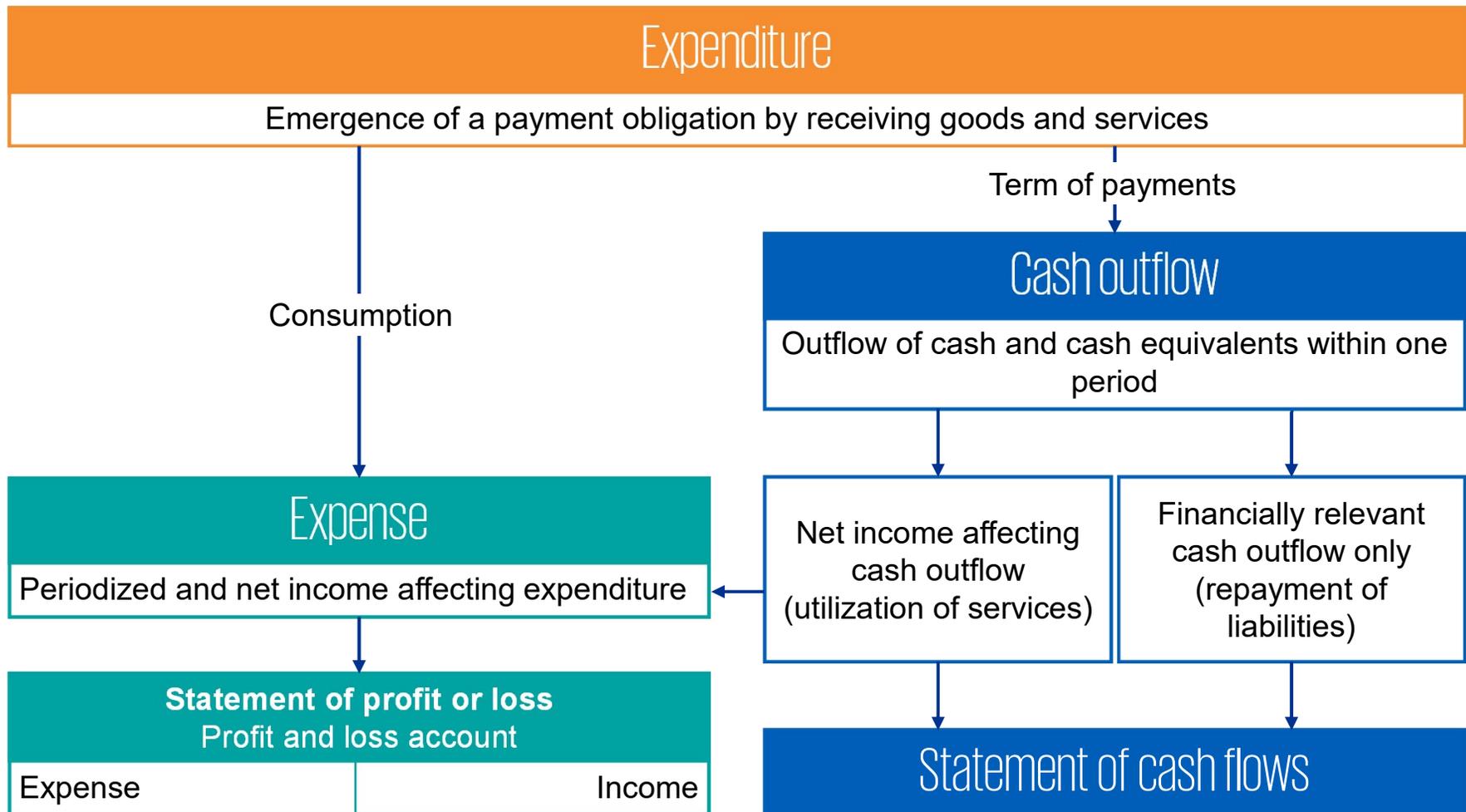
2 Basic terms of accounting

Example 3: Purchase - to - Pay (Purchasing cycle)



2 Basic terms of accounting

Distinction of cash-outflow, expenditure, and expense



Note: At some time every expenditure becomes either a cash-outflow or an expense by consumption respectively.

2 Basic terms of accounting

Example: Cash-inflow - Receipt/Cash-outflow - Expenditure (Poll 4)



Situation

The following business transactions are presented:

- Taking a cash loan (e.g. bank loan) amounting to 95.000 €
- Purchase of goods for 600 € on credit
- Sales of goods for 600 € on credit
- Cash purchase of raw materials
- Cash sale of goods for 300 €
- Granting a bank loan amounting to 1.111 € in cash

Task

Concerning the examples above, what business transaction can be identified as cash-inflow, receipt, cash-outflow, expenditure or both at the same time.

Note: A buyer's "purchase on credit" always implies a seller's "sale on credit".

2 Basic terms of accounting

Example: Receipts- Income/Expenditure - Expense (Poll 5)



Situation

The following business transactions are presented:

- Sale of tangible assets at book value which amounts to 5.000 €
- Impairment of a company vehicle
- A customer pays for a service 6.000 € in cash
- Rental payment for a business office
- Increase in value of a company's own tangible asset by 100 €
- Purchase of a production machine for 100.000 €

Task

Concerning the examples above, what business transaction can be identified as receipt, income, expenditure, expense or both at the same time.

2 Basic terms of accounting

Overview

Introduction to Accounting

1

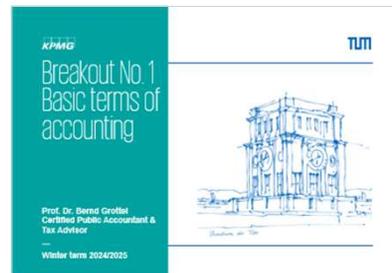
Basics of accounting

2

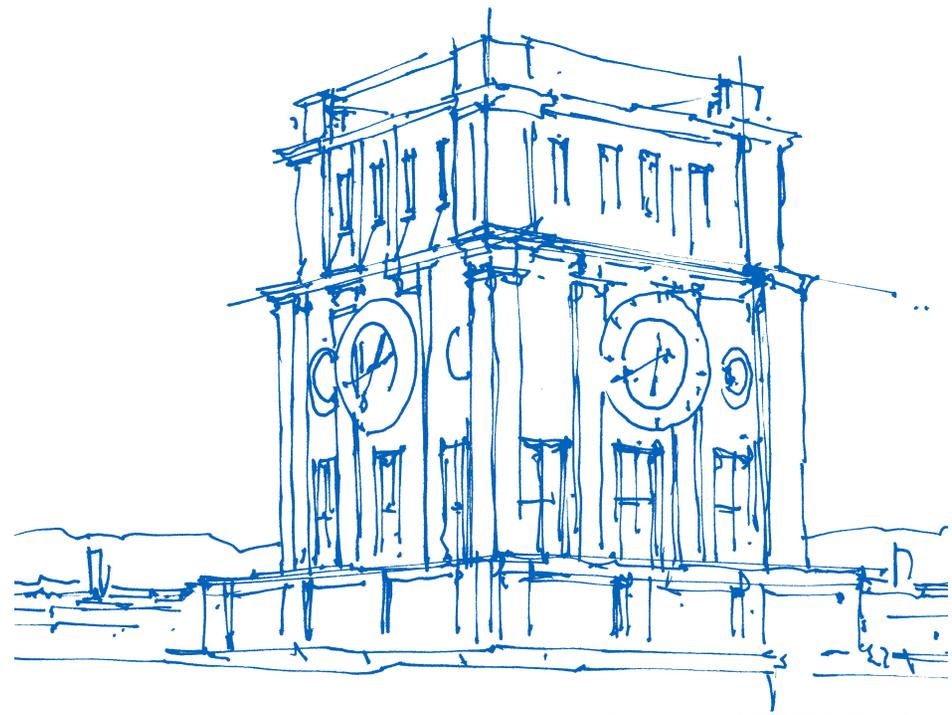
Breakout No. 1

3

Basics of financial accounting



3 Basics of financial accounting



Uhrenturm der TUM

3 Basic of financial accounting

Overview

Introduction to Accounting

1

Basics of accounting

2

Basic terms of accounting

3

Basics of financial accounting

Introduction to Accounting

1

Basics of accounting

2

Basic terms of accounting

3

Basics of financial accounting

Accounting standards

Accounting principles

Components of a financial statement

Accounting technique

3.1 Accounting standards

Rules & standards

Rules/standards define...

- if and when a transaction is recorded (recognition)
- where an item is disclosed (disclosure)
- how items are valued (valuation)

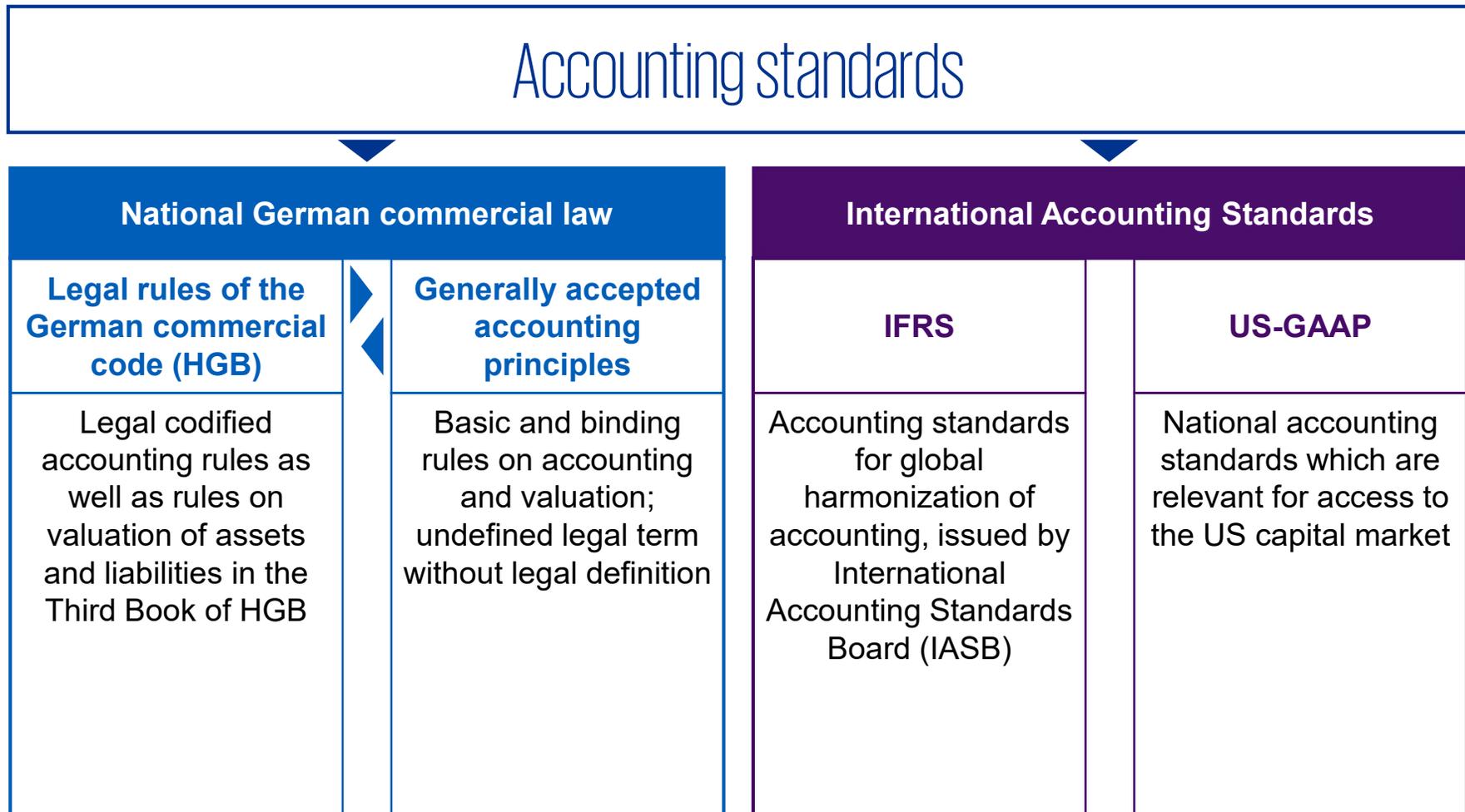
Different rules/standards

- National accounting standards
- German GAAP: ~30 pages (principles based)
US GAAP: ~ 25,000 pages (rules based)
- International accounting standards (IFRS):
~ 4.800 pages (mostly rules based)



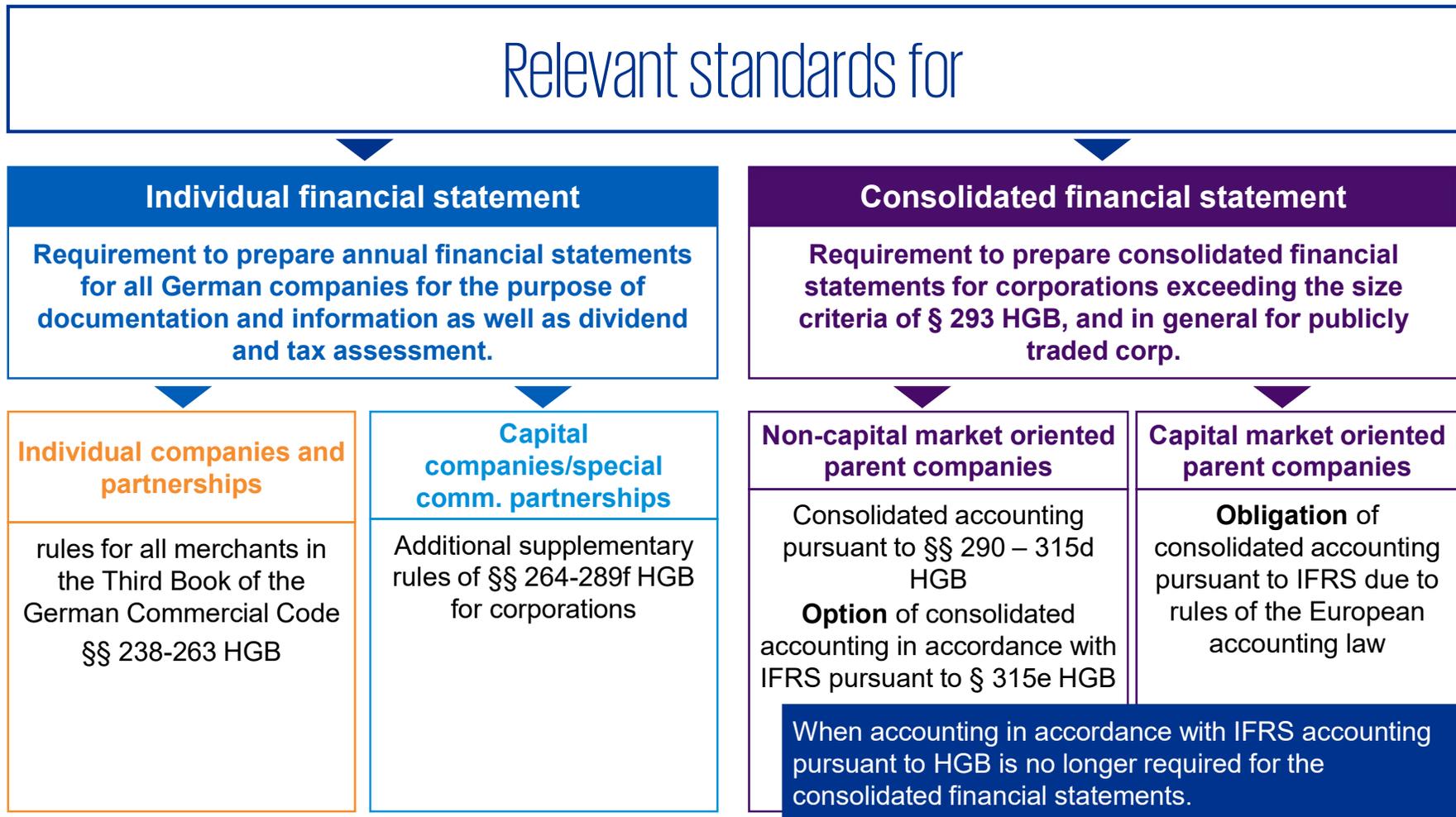
3.1 Accounting standards

National and international



3.1 Accounting standards

Germany: Accounting standards being relevant for preparation



3.1 Accounting standards

Corporated (capital) and unincorporated (partnership) companies

Criteria	Partnership	Capital companies
Position of partners?	Personality of partners is paramount, they are responsible for daily business	Partners recede into the background in respect of daily business, the company itself is coming to the fore
Representation?	Each partner has power of representation	Only management board has power of representation
Legal independence?	Legal independence (capacity to enjoy rights and be subject to obligations)	Legal independence (capacity to enjoy rights and be subject to obligations)
Legal personality?	Acting in legal communication is attributed to the natural persons behind	Acting in legal communication is attributed to the company, since it has its own legal personality (legal person)
Liability?	Partners bear liability personally and unlimited for the company's liabilities (Exception: limited partners)	Separation of company assets and partners (Partners do not bear liability for the company's liabilities)
Examples	OHG, KG, GbR	AG, GmbH, KGaA, GmbH & Co. KG

3.1 Accounting standards

Basic concept: "capital market oriented"

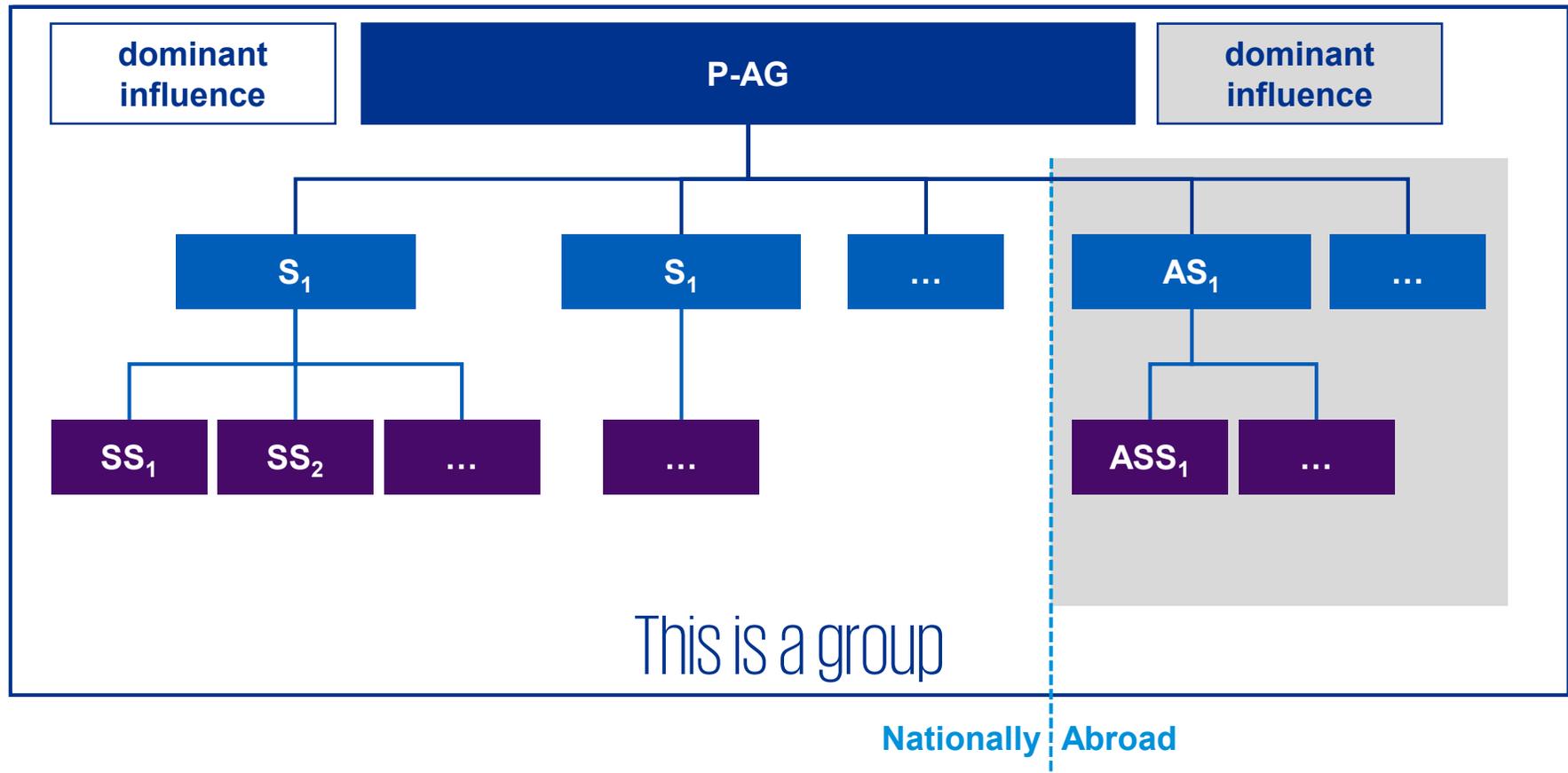
capital market oriented	listed
<p>A company is capital market oriented if</p> <ul style="list-style-type: none">— equity instruments (shares or similar securities) or— bonds <p>are traded on an organized market.</p>	<p>A company is listed if</p> <ul style="list-style-type: none">— equity instruments <p>are traded on an organized market.</p> <p>Remarks:</p> <ul style="list-style-type: none">— Only stock corporations, public partly limited partnerships, or a SE can be listed.— Hard disclosure obligations (quarterly reports, ad hoc announcements)— Examples: BMW AG, Allianz SE, Henkel AG & Co. KGaA, etc.

Question: What is the relationship between a capital company and a company being capital market oriented?

Answer: There is none! A capital company may be capital market oriented, but it does not have to. Same applies to a partnership (however only with bonds, i.e. it may not be listed!).

3.1 Accounting standards

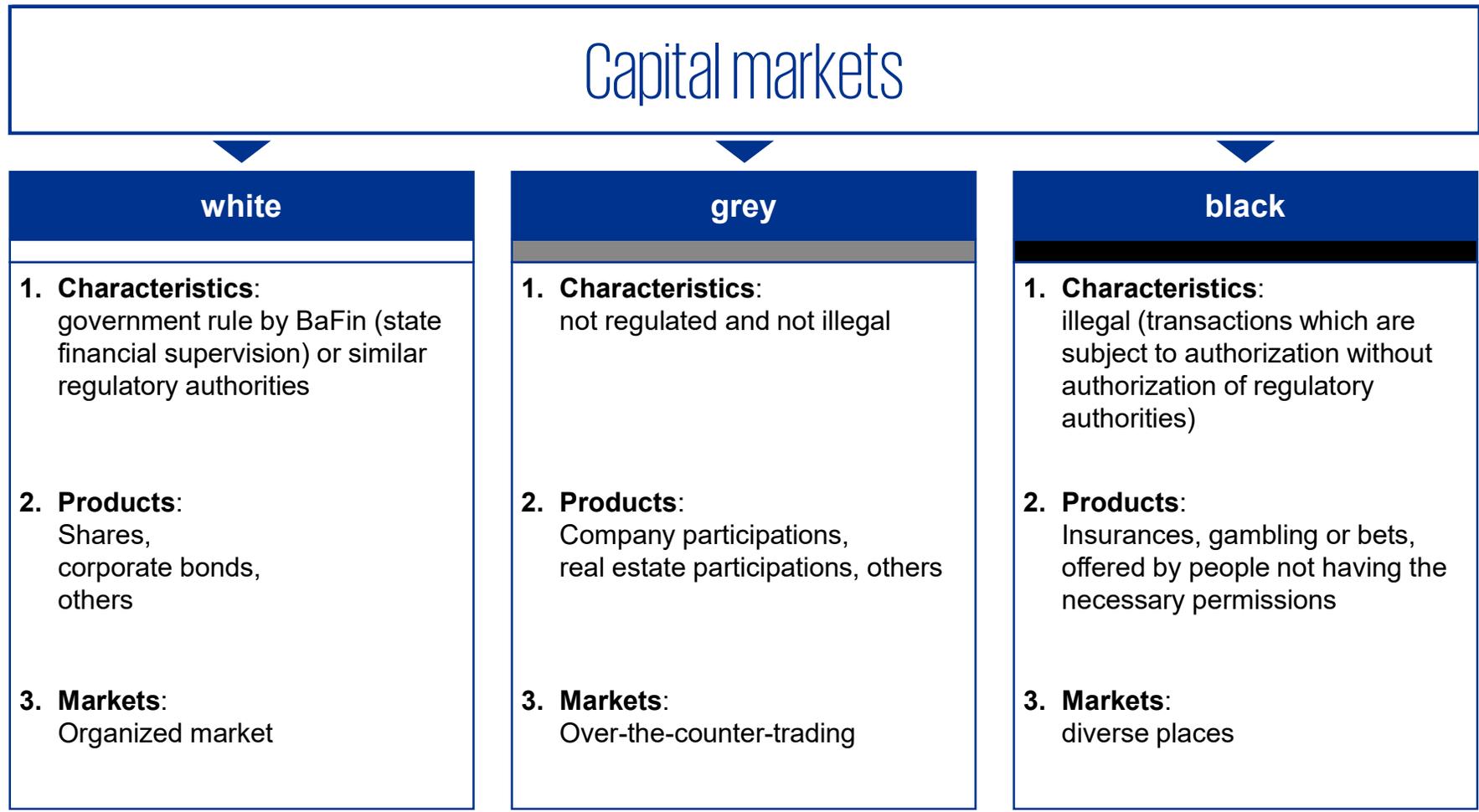
Basic concept: "Group"



P - Parent company S - Subsidiary SS - Sub-subsidiary

3.1 Accounting standards

Basic concept: "capital markets"



3.1 Accounting standards

Judgement involved

Judgment required

- no rules at all
- rules are wooly (“significant”, “probably”)
- rules require estimates (“future cash flows”, “fair value”)

- **Future contingencies: new circumstances, events, and transactions**
- **Standards deliberately give discretion to elicit managers’ private information (in particular principles-based standards)**



Source: Prof. Dr. Ernstberger

Introduction to Accounting

1

Basics of accounting

2

Basic terms of accounting

3

Basics of financial accounting

Accounting standards

Accounting principles

Components of a financial statement

Accounting technique

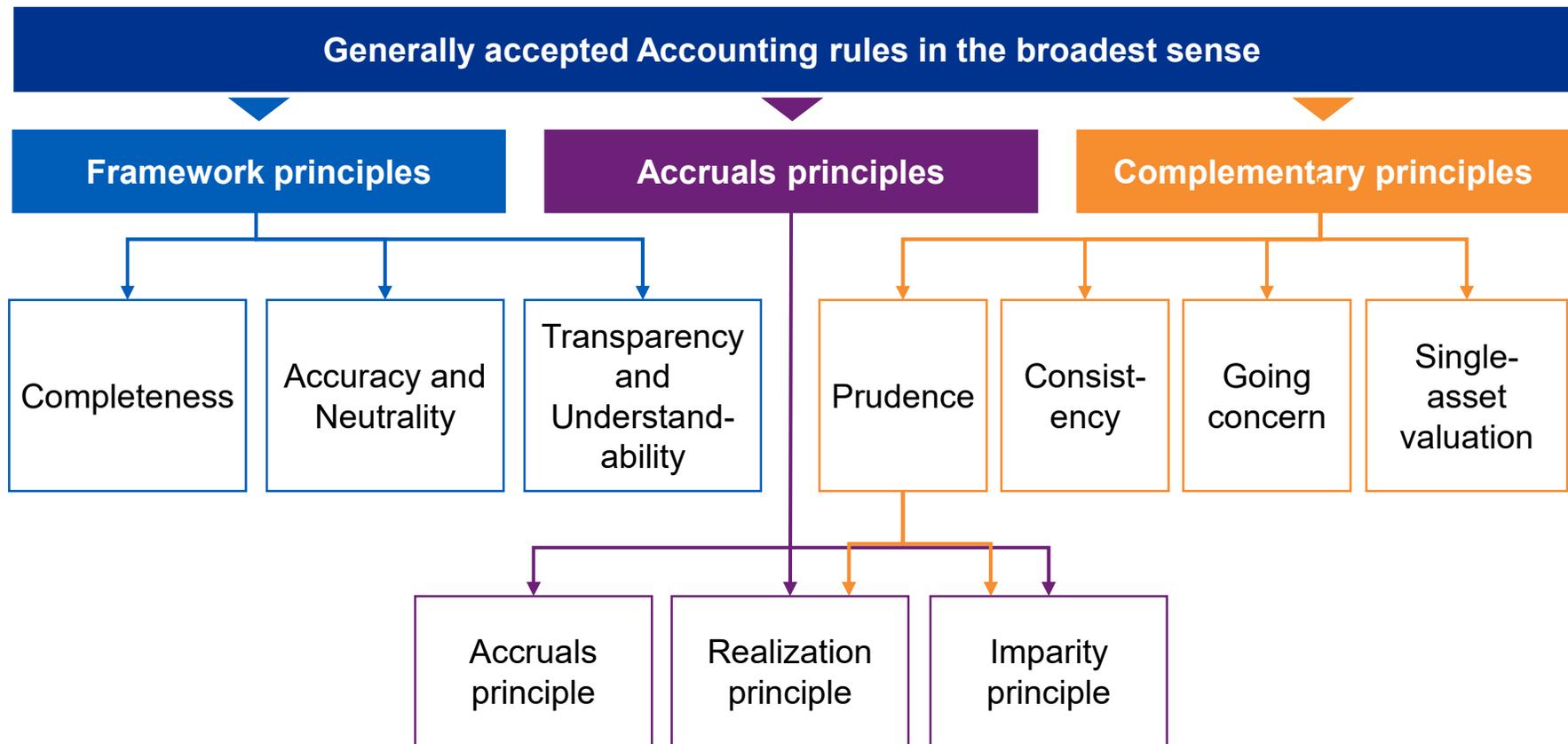
3.2 Accounting principles

Overview



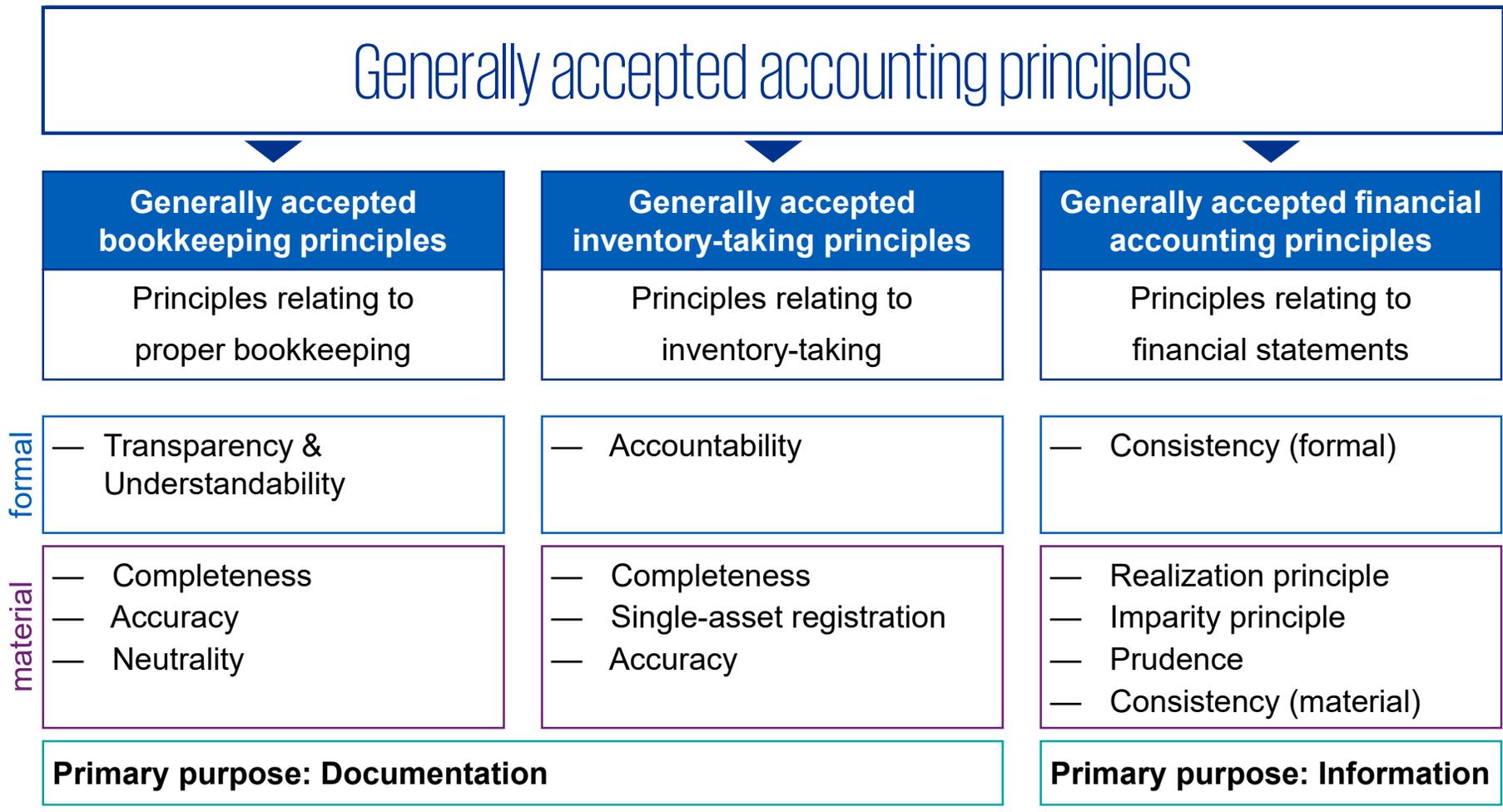
3.2 Accounting principles

System of principles following Leffsons



3.2 Accounting principles

Detailed overview



Introduction to Accounting

1

Basics of accounting

2

Basic terms of accounting

3

Basics of financial accounting

Accounting standards

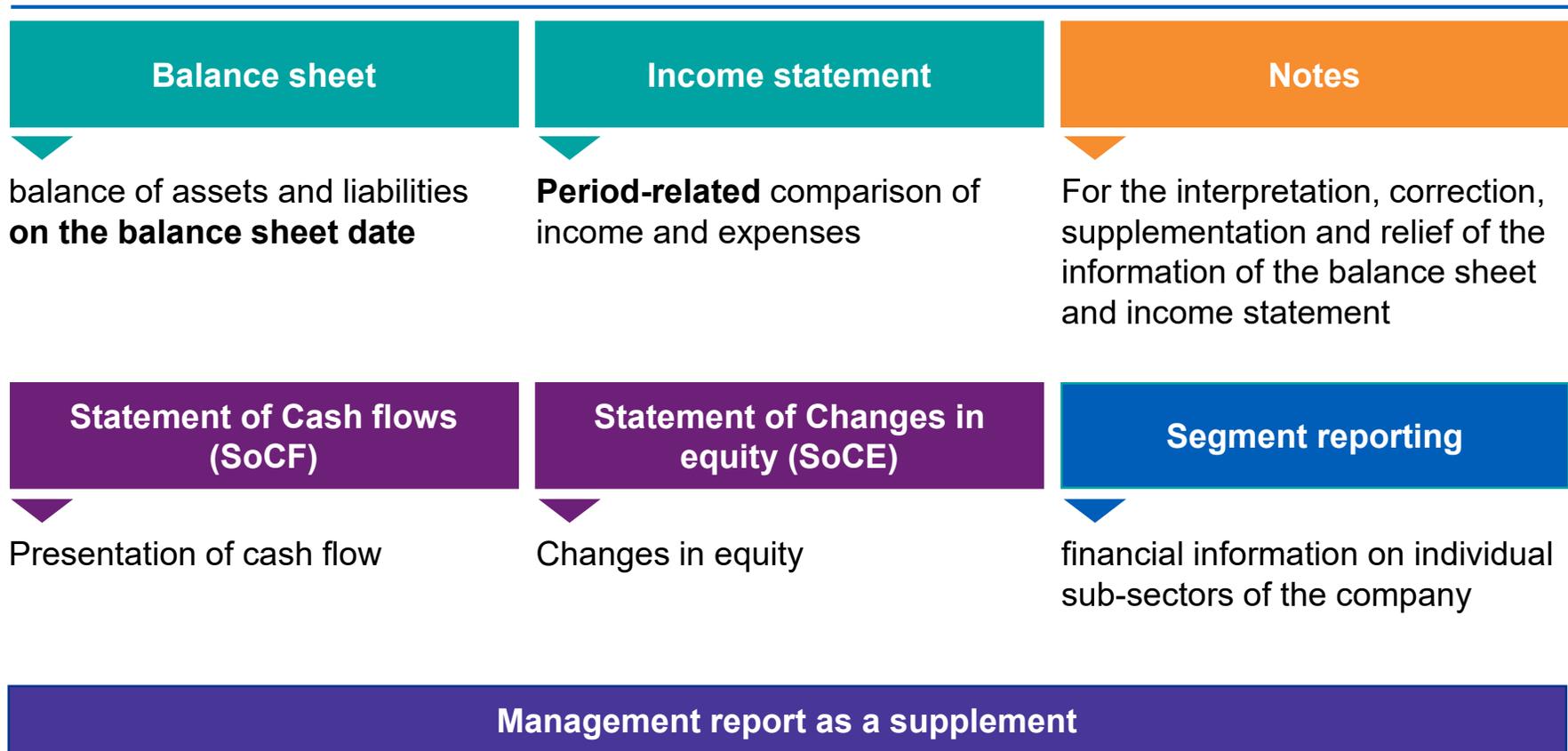
Accounting principles

Components of a financial statement

Accounting technique

3.3 Components of financial statements

Possible components of financial statements in accordance with HGB



Note: Important: The management report is not part of the financial statement, but an additional document. In order to show all mandatory documents, the management report was taken into account here.

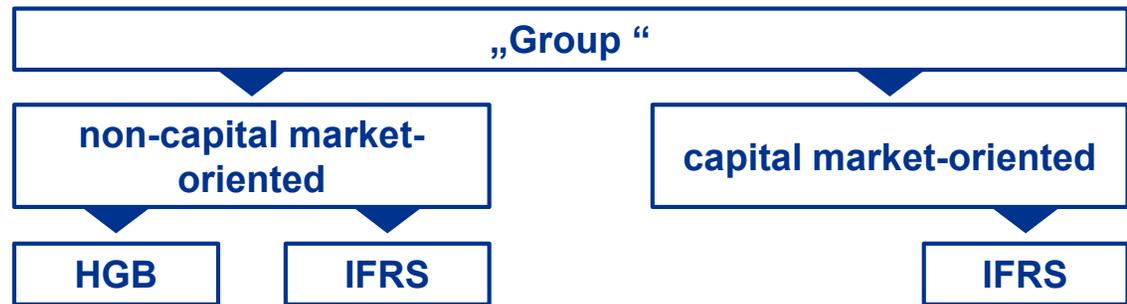
3.3 Components of financial statements

Components of individual financial statements in accordance with HGB

Components	Relevant components in the course of an individual financial statement						
	Small single merchants	Other	Micro-	Small	Medium-size	Large	Capital market-oriented
Segment reporting							Option (§ 264 Abs. 1 S 2 Hs. 2 HGB)
SoCF und SoCE (§ 264 Abs. 1 S 2 Hs 1 HGB)							Unless consolidated financial statements
Management report (§ 264 Abs. 1 S 1 iVm S 4 HGB)							
Notes (§ 264 Abs. 1 S 1 HGB)			Option (267a HGB)				
Income Statement (§ 242 Abs. 3 HGB)							
Balance sheet (§ 242 Abs. 3 HGB)							
Company characteristics	Small single merchants	Other	Micro-	Small	Medium-size	Large	Capital market-oriented
	Non-capital companies			Capital companies (corporations)			

3.3 Components of financial statements

Components of the consolidated financial statements in accordance with HGB and IFRS

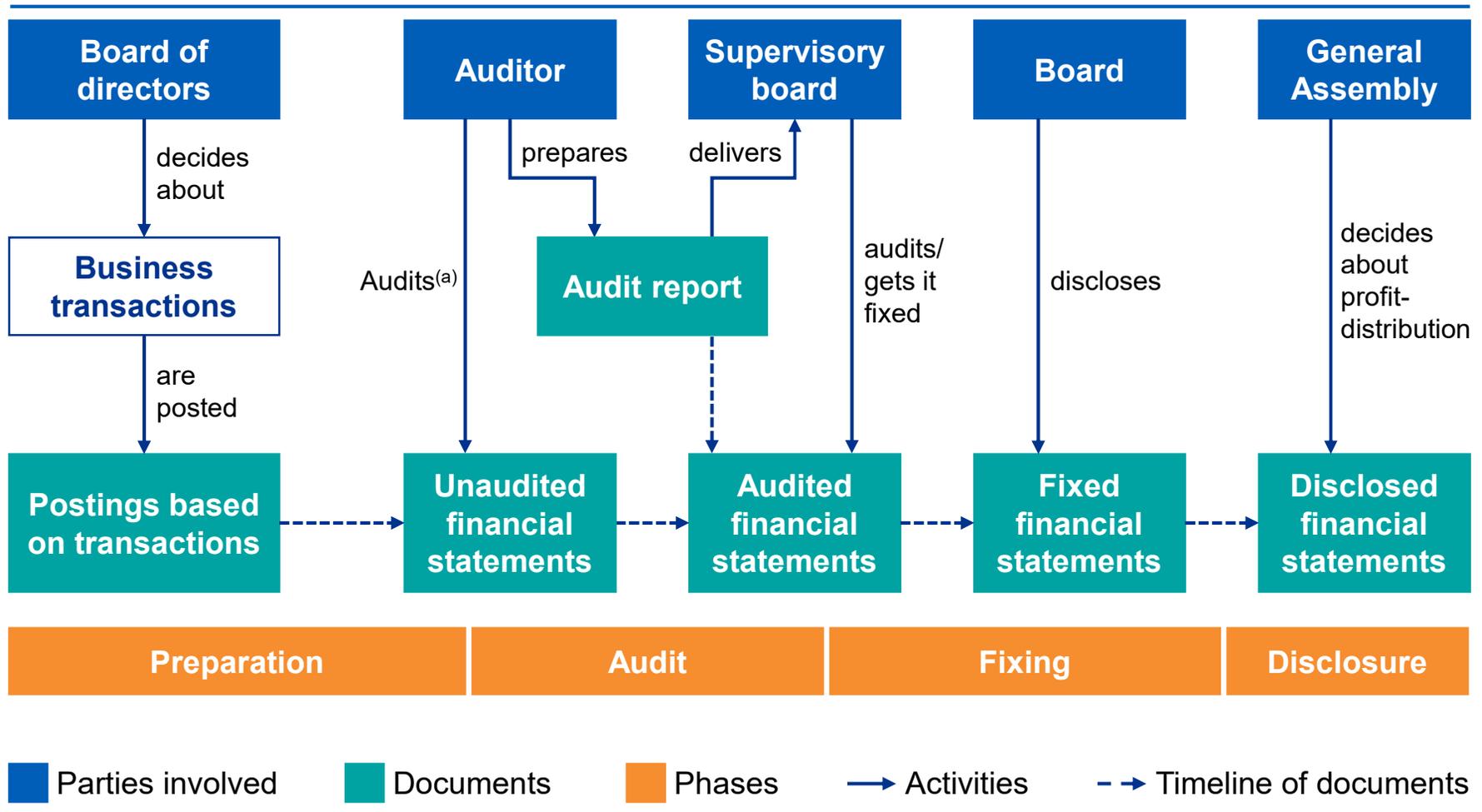


Balance sheet	mandatory	mandatory	Statement of financial position	mandatory
Income statement	mandatory	mandatory	Statement of comprehensive income ^(b)	mandatory
Statement of changes in equity	mandatory	mandatory	Statement of changes in equity	mandatory
Statement of cash flows	mandatory	mandatory	Statement of cash flows	mandatory
Notes	mandatory	mandatory	Notes	mandatory
Management report	mandatory	-(a)	Management report	-(a)

Note: (a) mandatory only according to local regulation (e.g. Germany)
 (b) Other comprehensive income does not exist according German legislation

3.3 Components of financial statements

Overview - Annual closing process (example based on an German AG)



Note: (a) Assumption: voluntary audit or statutory audit

Introduction to Accounting

1

Basics of accounting

2

Basic terms of accounting

3

Basics of financial accounting

Accounting standards

Accounting principles

Components of a financial statement

Accounting technique

Introduction to Accounting

1

Basics of accounting

2

Basic terms of accounting

3

Basics of financial accounting

Accounting standards

Accounting principles

Components of a financial statement

Lecture Bookkeeping

Thank you
for listening

Prof. Dr. Bernd Grottel

Mitglied des Vorstands

T +49 89 28644-5110

M +49 173 5764310

BGrottel@kpmg.com

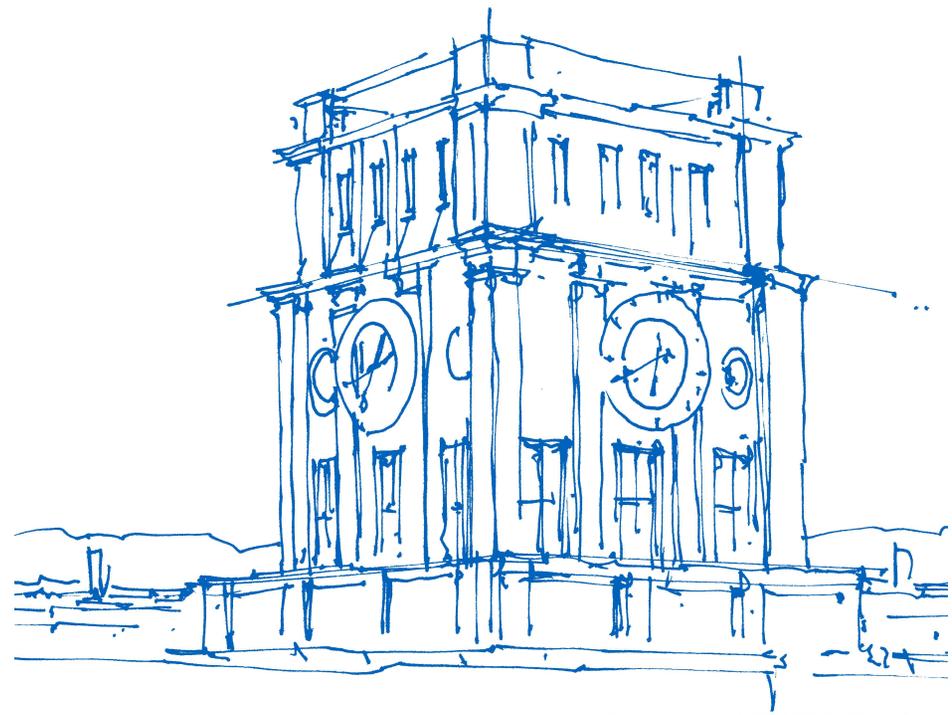
KPMG Bayerische Treuhandgesellschaft AG

Wirtschaftsprüfungsgesellschaft

Steuerberatungsgesellschaft

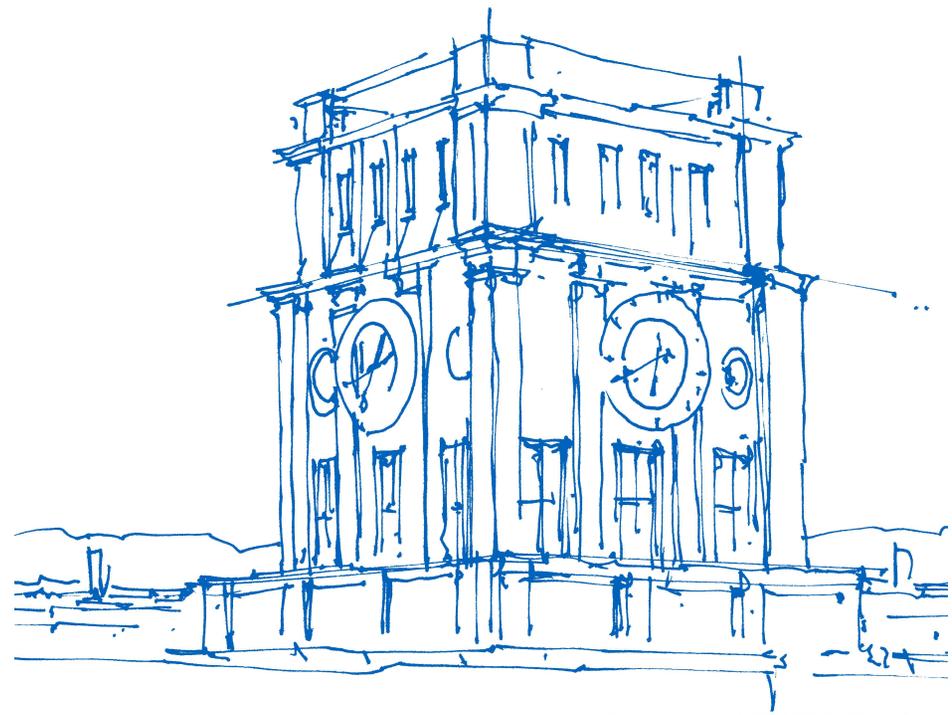
Friedenstraße 10

81671 München



Uhrenturm der TUM

MC-Questions



Uhrenturm der TUM



MC-Questions on Chapter 1

Which type of accounting is assigned to external accounting?

- A Statistics and comparative methods
- B Cost and performance accounting
- C Financial accounting**
- D Planning/budgeting

External accounting...

- A is customizable for each company
- B is designed by works council
- C is determined by chartered accountants
- D is subject to legal rules**

1 Basics of accounting (MCQ)

Types of accounting

MC

Who is **not** an addressee of the financial statement?

- A Owners
- B Creditors
- C Company management
- D Auditor**

What is **not** a function of external accounting?

- A Representing company's financial situation to its stakeholders
- B Planning, monitoring and controlling of a company's operations**
- C Financial Reporting/Accounting pursuant to legal rules
- D Preparation of financial statements



MC-Questions on Chapter 3

What of the following applies for the national German commercial law?

- A just the HGB
- B the HGB and GoB**
- C the HGB, GoB and IFRS
- D the HGB, GoB, IFRS and US-GAAP

Which of the following accounting rules is **not** legally defined?

- A HGB
- B GoB**
- C IFRS
- D US-GAAP

The capital market-oriented Schnöllerle AG that is based in Germany with subsidiaries abroad only ...

- A needs to prepare an individual financial statement applying HGB and a consolidated financial statement applying IFRS.
- B needs to prepare an individual financial statement applying HGB and a consolidated financial statement applying HGB or IFRS.
- C needs to prepare an individual financial statement applying HGB and a consolidated financial statement applying IFRS.**
- D needs to prepare an individual financial statement applying HGB and a consolidated financial statement applying HGB and IFRS.

Which principle is **not** an assignable framework principle of the generally accepted accounting principles?

- A Completeness
- B Prudence**
- C Accuracy and Neutrality
- D Transparency and Understandability

Which principle is **not** an assignable accruals principles of the generally accepted accounting principles?

- A Imparity principle
- B Realization principle
- C Accruals principle
- D Single-asset valuation**

The generally accepted Accounting rules need to be taken into consideration for preparing the financial statements. What is **not** a part of the **accrual principles** of the generally accepted Accounting rules?

- A Realization principle
- B Accruals principle
- C Completeness**
- D Imparity principle

In which case is a cash-outflow an expenditure at the same time?

- A Purchase of goods on credit
- B Purchase of goods in cash**
- C Payment of goods sold in a prior period
- D Delivery of goods that have been paid within a prior period

Business accounting is separated in different fields. What is **not** a part of the **financial accounting**?

- A Bookkeeping
- B Financial planning**
- C Inventory
- D Financial statements

The generally accepted Accounting rules need to be taken into consideration for preparing the financial statements. What is **not** a part of the **framework principles** of the generally accepted Accounting rules?

- A Transparency and Understandability
- B Completeness
- C Prudence**
- D Accuracy and Neutrality

Which principle is **not** an assignable complementary principle of the generally accepted accounting principles?

- A Consistency
- B Prudence
- C Imparity principle**
- D Going concern