

Software Vendors

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COSS B03

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Agenda

1. Products and vendors
2. Projects vs. product firms
3. The financial view
4. Business functions
5. Core business processes

1. Products and Vendors

The Main Types of Industry Players (Recap)

- **Standard product providers**
 - **(Independent) software vendors (ISVs)**
 - Produce software products (“standard software” or “commercial off-the-shelf software”)
 - **Software service providers (e.g. “Internet companies”)**
 - Operate any form of software (and hardware)
- **Software consulting firms**
 - **Development services firms**
 - Produce custom software
 - **Implementation services firms**
 - Configure software products for use by customers
- **Non-profit organizations**
 - Standards organizations
 - Regulatory bodies
 - Certification agencies

Core, Basic, and Whole Product (Recap)

- **Core product =**
 - Core software
 - Additional functionality
 - Complementary artifacts
 - Self-help services
- **Basic product =**
 - Core product +
 - Fitness for use
 - Certification
 - Support services
- **Whole product =**
 - Basic product +
 - Training
 - Consulting
 - Operations

2. Product vs. Project Firms

Enterprise Software Products and Projects

Software
vendor

Product

Consulting
firm

Project



Widget Corp.
BI Impl. 2008



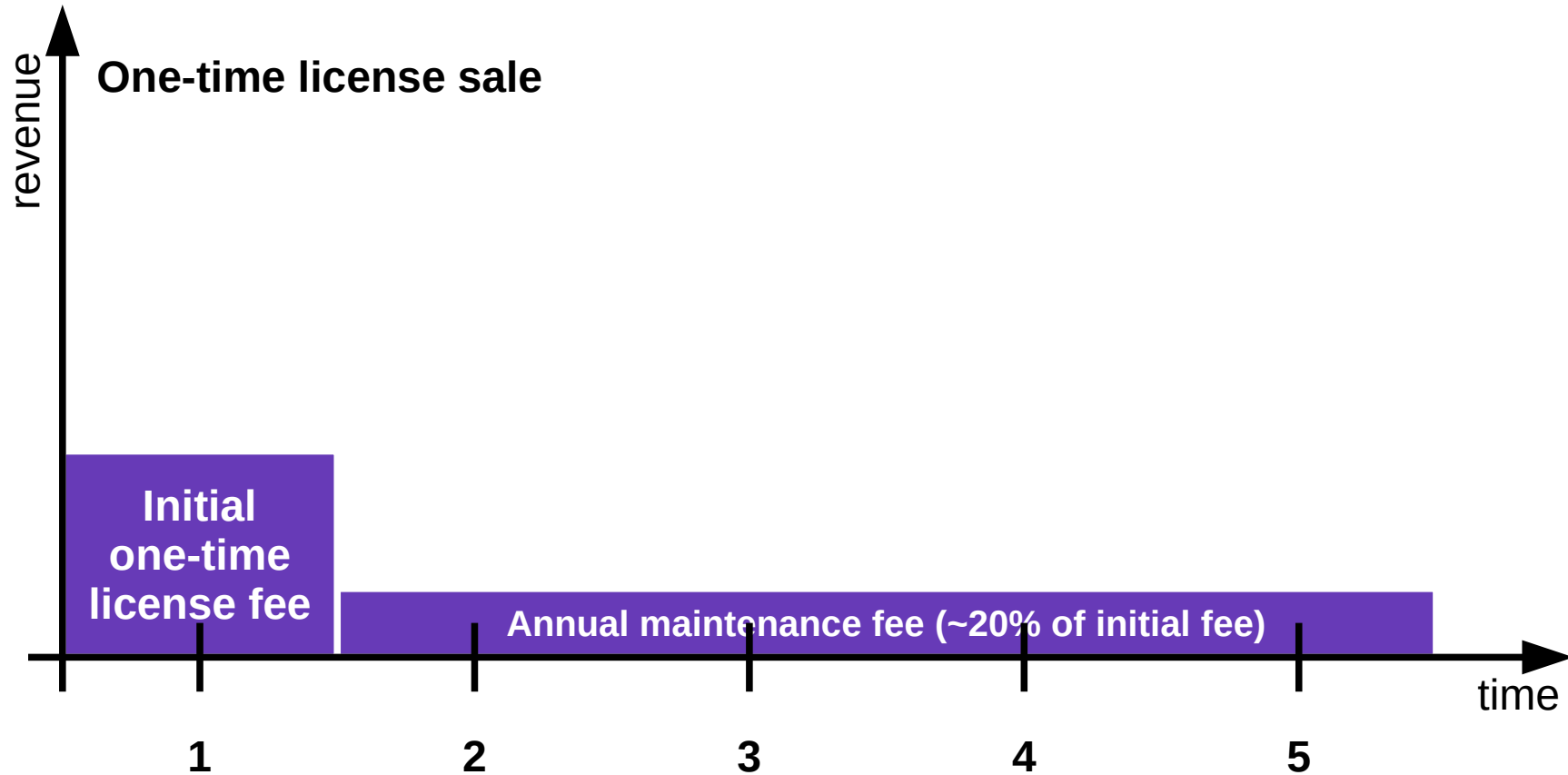
German SME
Sugar 2010



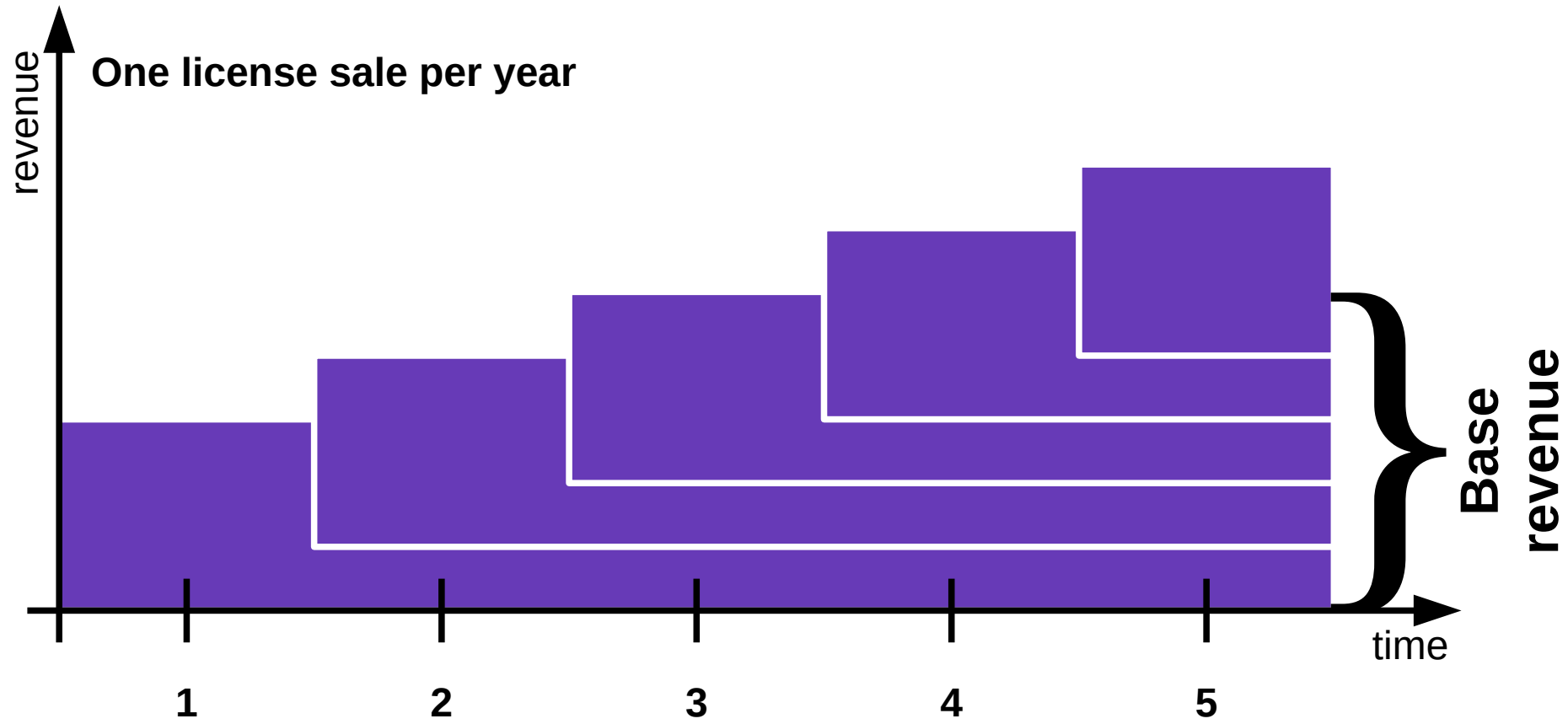
Continental
Stages 2010



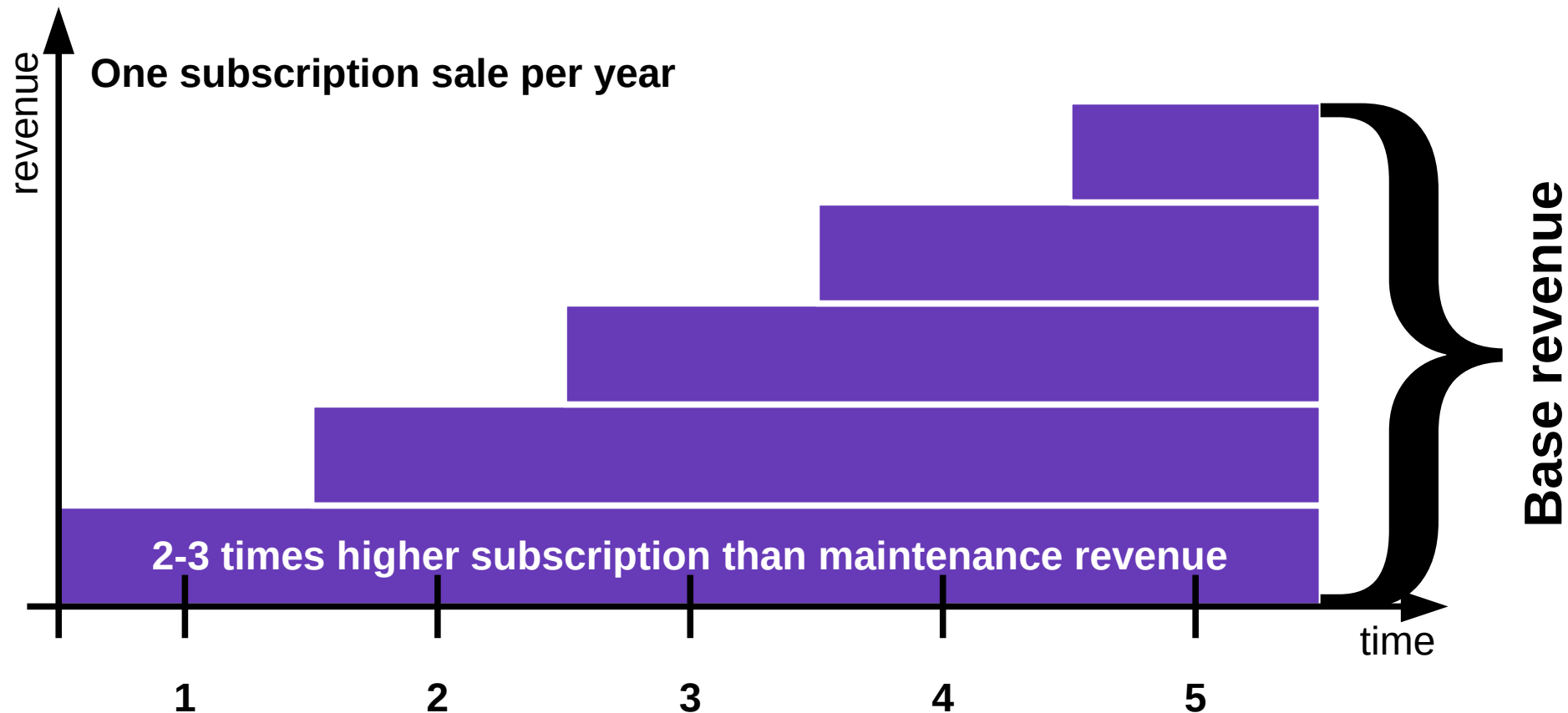
Software Product Revenue



Accumulating Traditional Software Product Revenue



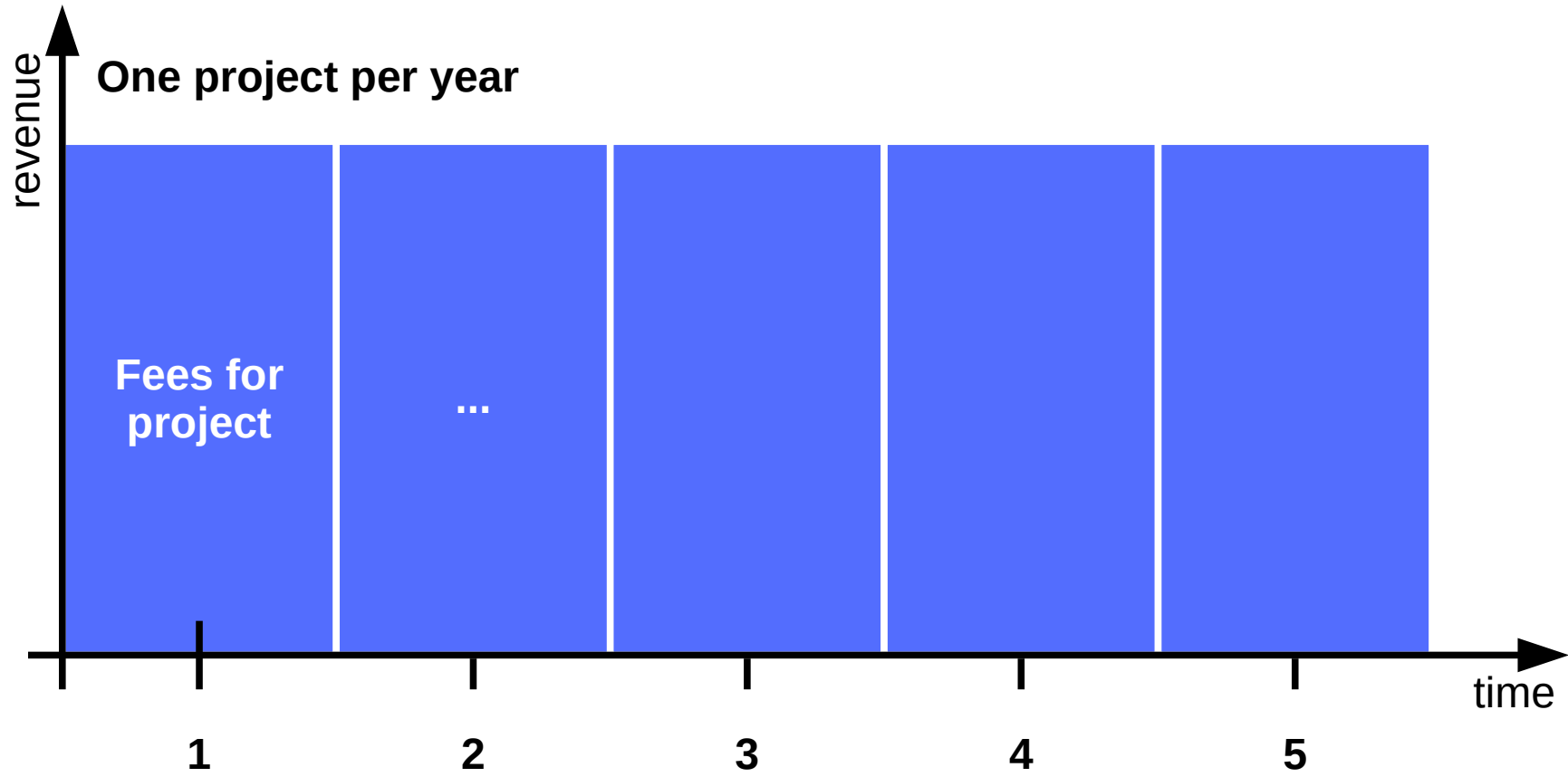
Accumulating Software Subscription Revenue



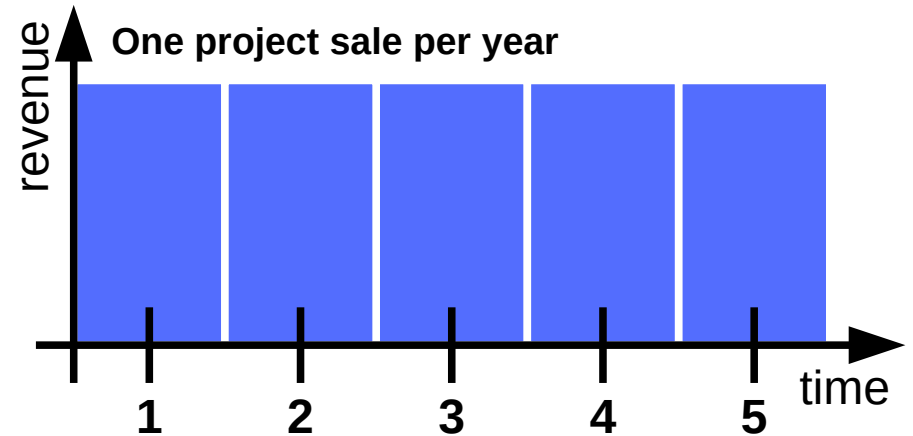
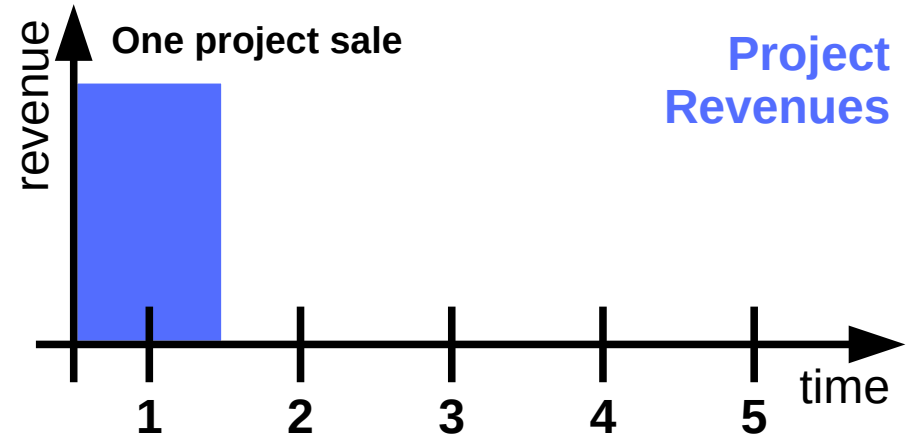
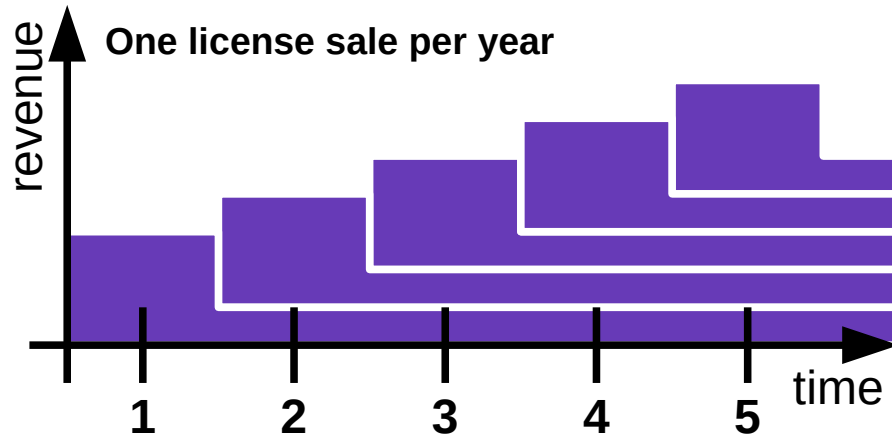
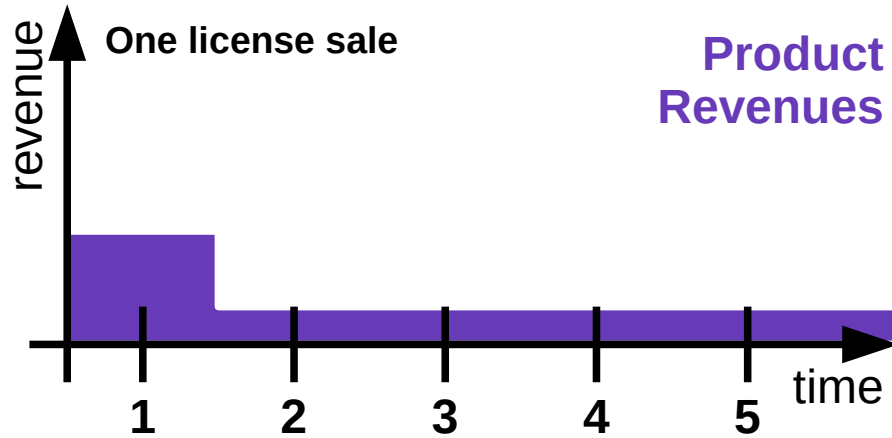
Software Projects

- A **project** is an undertaking that
 - Has a process with a defined start and a defined end
- A **software project** is a project where
 - Revenues correlate with performed labor
 - Fixed price vs. actual labor
 - Accounted for as revenue and expenses
- Some example projects
 - Bachelor and Master theses
 - Customizing SAP for a customer

Software Project Revenue



Software Product vs. Project Revenue



Software Product vs. Project Firms

	Software vendor	Consulting firm
Advantages	<ul style="list-style-type: none">• Predictable revenue• High valuation multiples	<ul style="list-style-type: none">• Not capital intensive• Can be started easily• Has simple pricing
Disadvantages	<ul style="list-style-type: none">• Hard to get started• Requires investment• Most fail, few survive	<ul style="list-style-type: none">• Somewhat fragile revenue• Higher business volatility• Limited scalability

3. The Financial View

The Three Statements of Financial Accounting

- Balance sheet
 - A summary (annual) statement of assets, liabilities, and equity
- Income statement
 - A summary (annual) statement of revenues and expenses
- Cash-flow statement
 - A summary (annual) of flow of cash (and cash equivalents)

The Income Statement

- Basic vocabulary
 - Revenues = income (sales)
 - Expenses = costs
 - Profit (loss) = revenues - expenses

	2011 (\$m)	Percentage
Revenues	\$1.657	100%
Subscription and Support	\$1.551	94%
Professional Services etc.	\$106	6%
Cost of Revenues	\$324	20%
Subscription and Support	\$208	13%
Professional Services etc.	\$116	7%
Gross Profit (and Gross Margin)	\$1.333	80%
Operating Expenses		
Research and Development	\$188	11%
Sales and Marketing	\$792	48%
General and Administrative	\$256	15%
Total Operating Costs	\$1.236	74%
Operating Profit (and Operating Margin)	\$97	6%

Source: Michael A. Cusumano. Reflecting on the Facebook IPO. CACM 10, 2012.

Quiz: Accenture vs. Salesforce (2019)

Metric Ratio	Accenture	Salesforce
Market capitalization	??	??
Revenue	US\$ 43 billion	US\$ 17 billion
Net income [1]	US\$ 4,5 billion	US\$ 0,1 billion
Price-to-sales ratio [2]	??	??
Gross profit margin [3]	30%	74%
Operating profit margin	15%	2,94%
Net profit margin	11%	0,74%
Revenue growth	4,4%	29%
No employees	510.000	49.000

[1] Net income = revenue – (COGS + SGA + operating expenses + depreciation + ... taxes)

[2] Price-to-sales ratio = market capitalization / last year's revenue

[3] Gross profit margin = (revenue – COGS) / revenue

Accenture vs. Salesforce (2019)

Metric Ratio	Accenture	Salesforce
Market capitalization	US\$ 134 billion	US\$ 144 billion
Revenue	US\$ 43 billion	US\$ 17 billion
Net income	US\$ 4,5 billion	US\$ 0,1 billion
Price-to-sales ratio	3,58	9,06
Gross profit margin	30%	74%
Operating profit margin	15%	2,94%
Net profit margin	11%	0,74%
Revenue growth	4,4%	29%
No employees	510.000	49.000

4. Business Functions

Key Business Functions and Processes

Sales and Marketing			Professional services	Product management	Engineering			Other (HR, Finance, ...)
Sales	Marketing	Customer success			Development	Operations	Support	
1. Build product								
							2. Acquire customers	
3. Operate product								
4. Support customers								
5. Ensure satisfaction								

Product Management (Business Functions 1 / 9)

- Roles / titles
 - Chief product officer (CPO)
 - Strategic product manager
 - Technical product manager (e.g. Scrum product owner)
- Responsibilities
 - Identify and justify new business opportunities
 - Define and prioritize product vision, roadmap, and features
- Key stakeholder in
 - Build product
 - Acquire customers
 - Ensure customer satisfaction

- Roles / titles
 - Developer / engineer
 - Software architect [1]
 - Engineering manager
- Responsibilities
 - Design, build, and evolve product
 - Provide third-level support
- Key stakeholder in
 - Build product

- Roles / titles
 - Site reliability engineer
 - Operations manager
- Responsibilities
 - Operate product
 - Provide third-level support
- Key stakeholder in
 - Operate product
 - Support customers

Engineering / Support (Business Functions 4 / 9)

- Roles / titles
 - Support engineer
 - Support manager
- Responsibilities
 - Respond to support requests
 - Build support automation
- Key stakeholder in
 - Support customers
- May overlap with DevOps

Marketing (Business Functions 5 / 9)

- Roles / titles
 - (Marketeer)
 - Marketing manager
- Responsibilities
 - Create brand awareness
 - Generate demand
 - Generate leads, qualify them
 - Make product known (campaigns, webinars, etc.)
 - Provide competitive intelligence
- Key stakeholder in
 - Acquire customers

Sales (Business Functions 6 / 9)

- Roles / titles
 - Sales person / representative
 - Pre-sales (person)
 - Sales manager
 - Account manager
- Responsibilities
 - Turn qualified leads into customers
 - Drive upsell, cross-sell, and renewals
- Key stakeholder in
 - Acquire customers

Customer Success (Business Functions 7 / 9)

- Roles / titles
 - Customer advocate
 - Customer success manager
- Responsibilities
 - Ensure actual use
 - Improve satisfaction
- Key stakeholder in
 - Ensure customer satisfaction

Professional Services (Business Functions 8 / 9)

- Roles / titles
 - Consultant
 - Project manager
- Responsibilities
 - Help deploy the product (“solution”)
 - Review partner consulting firm (work quality)
 - Help manage consulting ecosystem
- Key stakeholder in
 - Ensure customer satisfaction

Other (Business Functions 9 / 9)

- Human resources
 - Supports hiring
 - Ensures compliance
- Finance
 - Supports operations
 - Manages expenses / costs
 - Helps fundraising
 - Ensures compliance

ORGANIZATION CHART

of

THE TABULATING MACHINE CO.

BOARD OF DIRECTORS - C-T-R-CO.

Alfred DeBuys
George W. Fairchild
Charles R. Flint
A. Ward Ford
Oscar L. Gubelman
Samuel M. Hastings
John W. Herbert
Joel S. Coffin

Clarence P. King
Stacy C. Richmond
Joseph E. Rogers
Christopher D. Smithers
Thomas J. Watson
George I. Wilber
Rollin S. Woodruff

OFFICERS-C-T-R-CO.

Thomas J. Watson - Pres. & Genl. Mgr.
George W. Fairchild - Vice-President
James S. Ogsbury - Secy & Treasurer

COMPUTING-TABULATING-RECORDING CO.
Offices - 50 Broad St. - New York City

THE TABULATING MACHINE CO.

General Offices - 50 Broad St.
New York City

DIRECTORS

George M. Bond James S. Ogsbury
George W. Fairchild Gershom Smith
Thomas J. Watson

Factories - WASHINGTON, D. C.
- ENDICOTT, N. Y.
- DAYTON, O.

THOMAS J. WATSON *President*
R. L. Houston *General Manager*

OFFICERS

Thomas J. Watson - President
Gershom Smith - Vice-President
R. L. Houston - Treasurer
W. D. Jones - Asst. Treasurer
James S. Ogsbury - Secretary
O. E. Braitmayer - Asst. Secretary

MANUFACTURING

O. E. Braitmayer
Swift Boykin - Chief Clerk

SYSTEMS

Gershom Smith
Pierre Bontecou

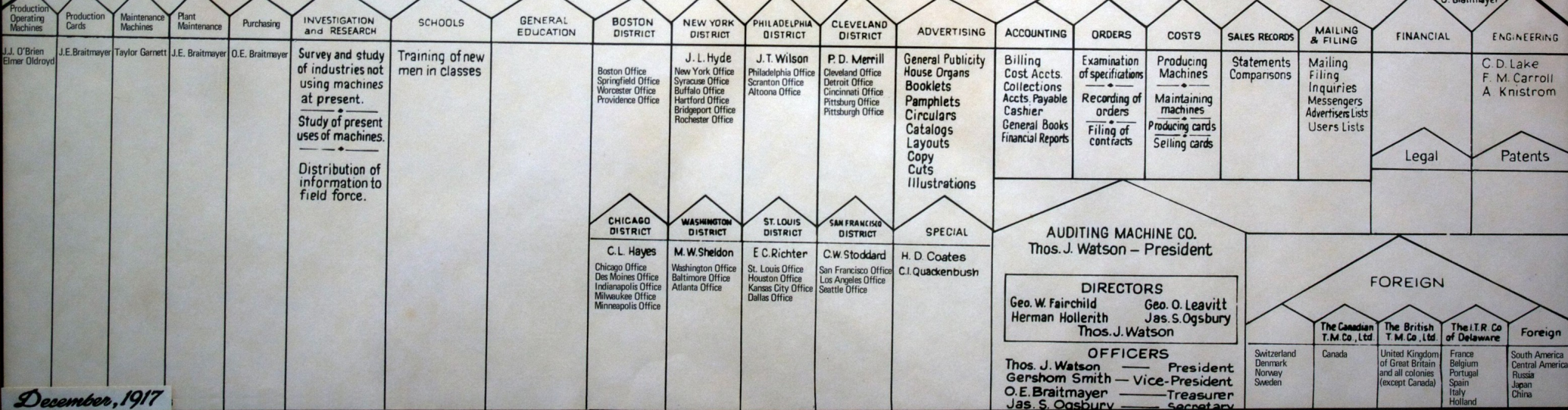
SALES

G. W. Spahr

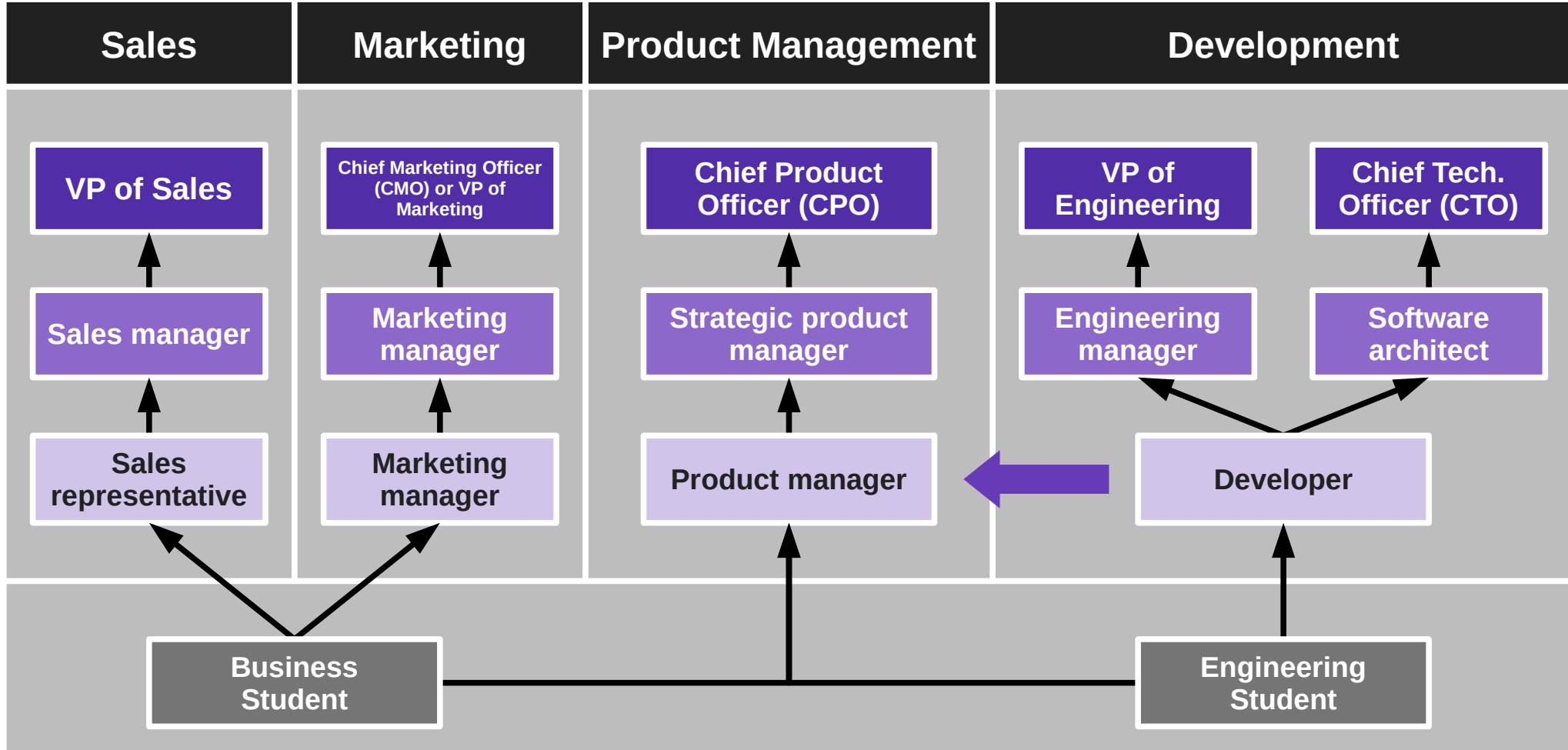
OFFICE

W. D. Jones
Wm. MacLardy

ADMINISTRATION
R. L. Houston
O. Braitmayer



Titles and Careers in a Software Company

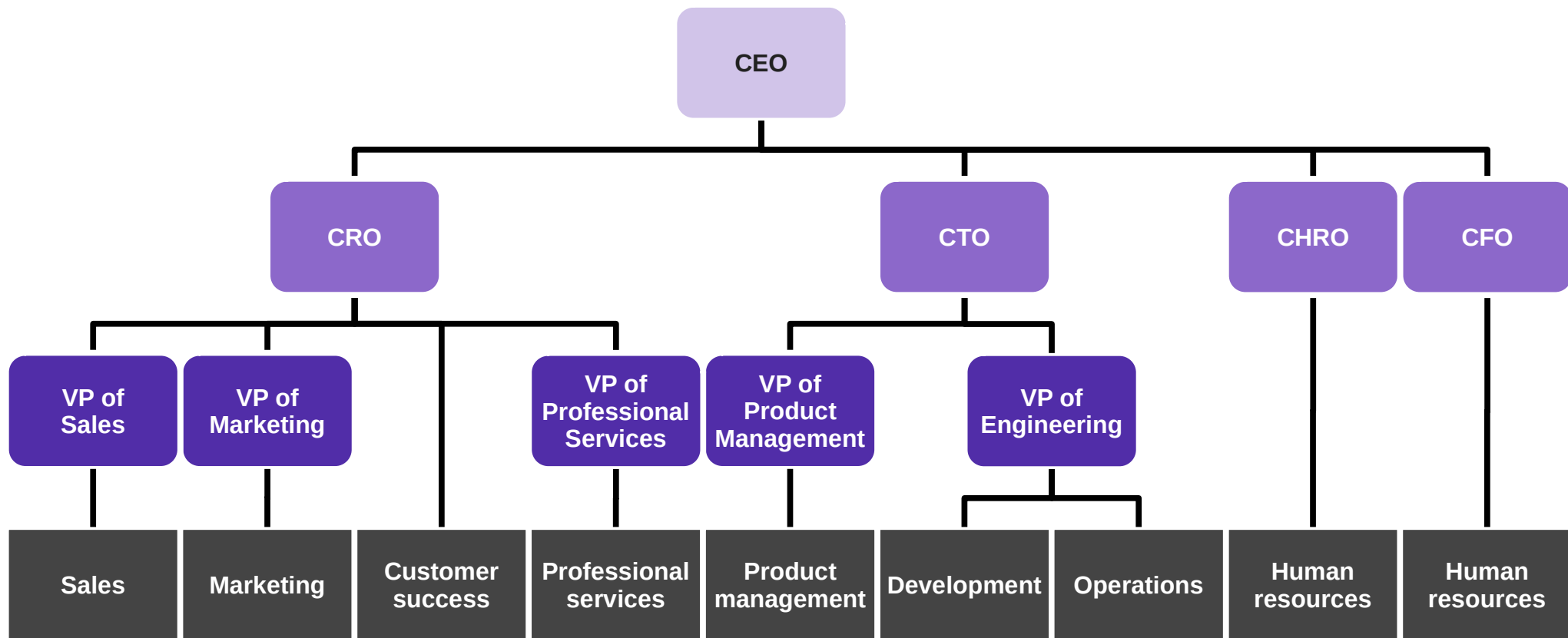


5. Core Business Processes

Profit Center vs. Cost Center

- Profit center
 - Generates revenue (“makes money”)
 - Reason why company exists
- Cost center
 - Costs money
 - Needed to operate (“hygiene factor”)

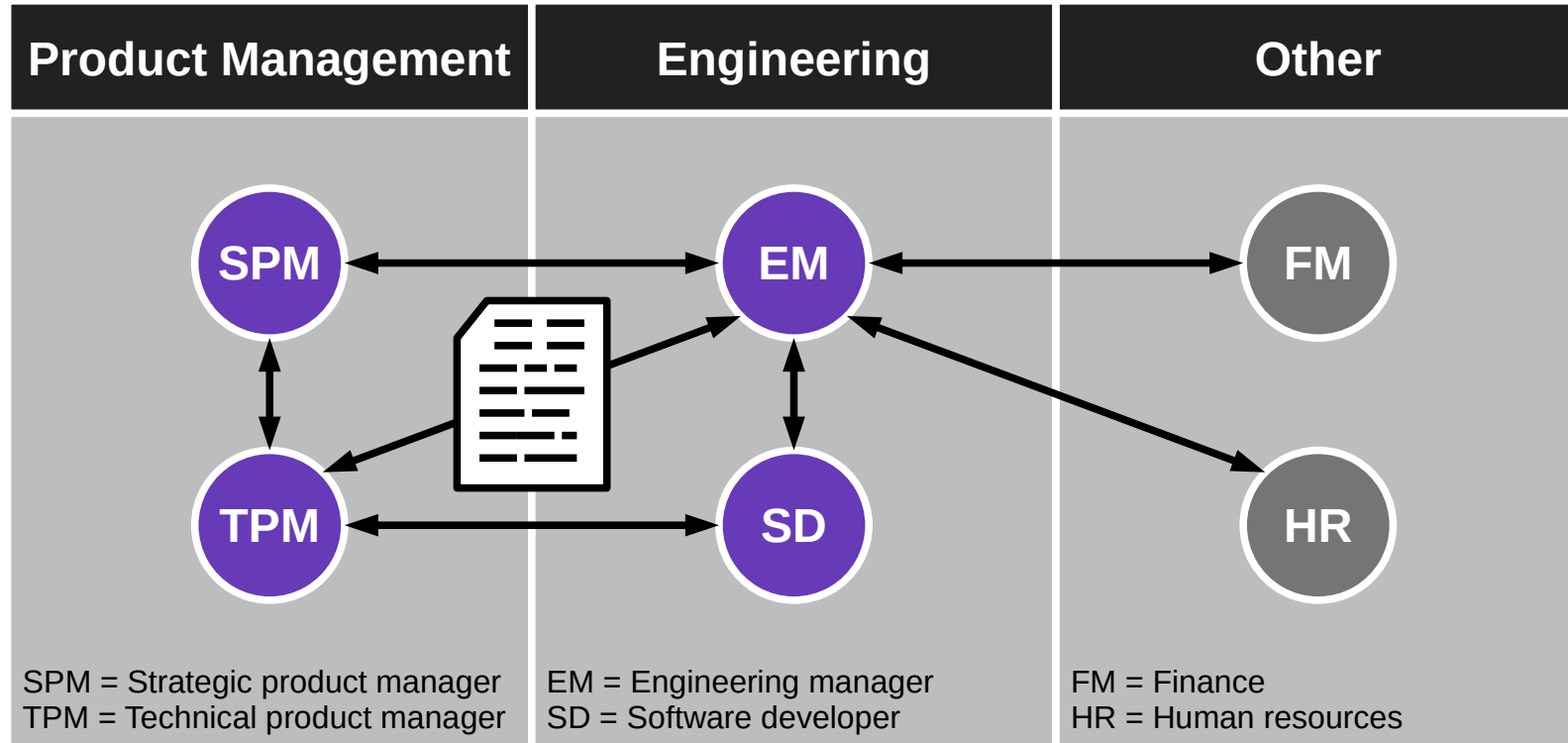
Managerial Hierarchy (Line Reporting)



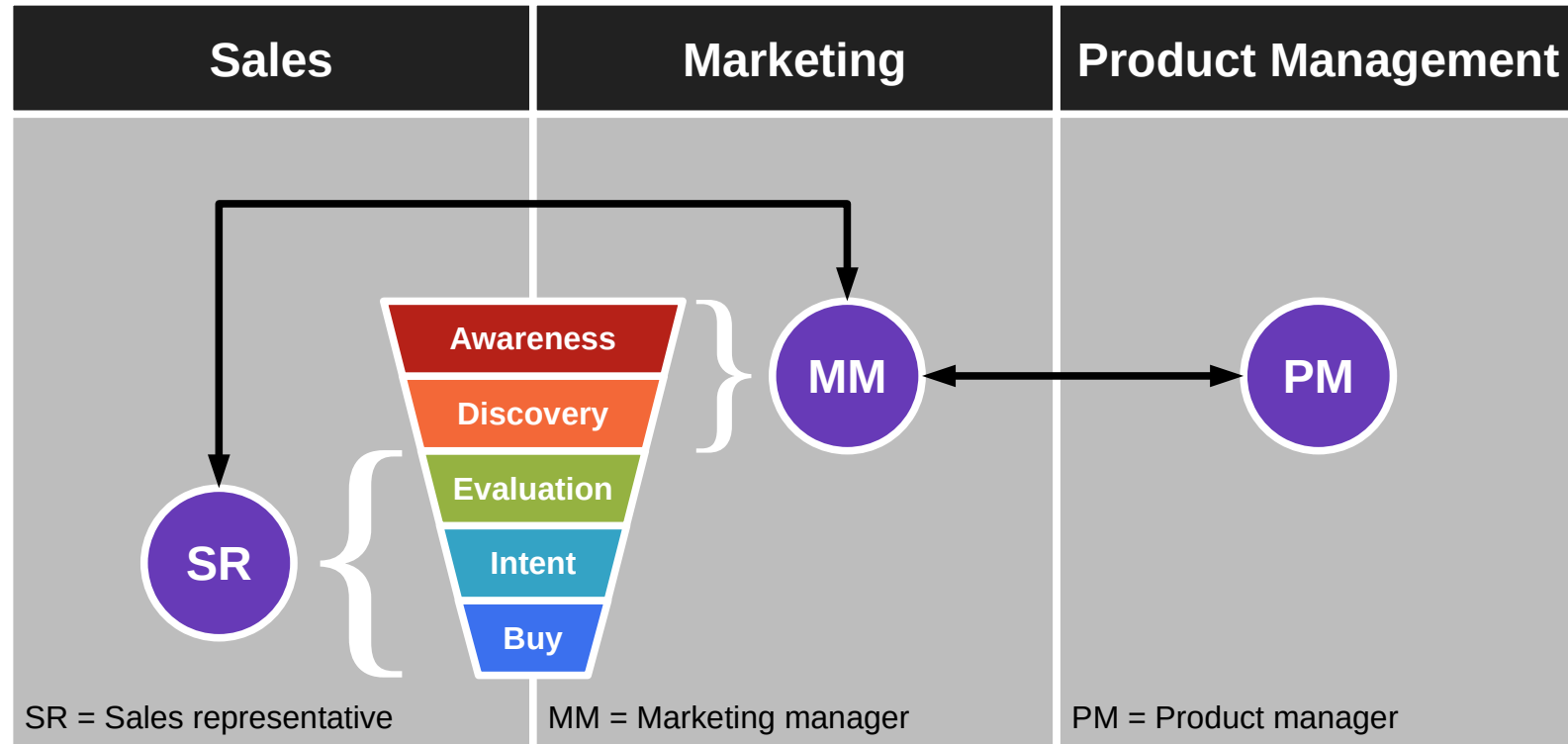
Core Business Processes

1. Product development (“build product”)
2. Customer acquisition (“acquire customers”)
3. Product operations (“operate product”)
4. Customer support (“support customers”)
5. Customer success (“ensure customer satisfaction”)

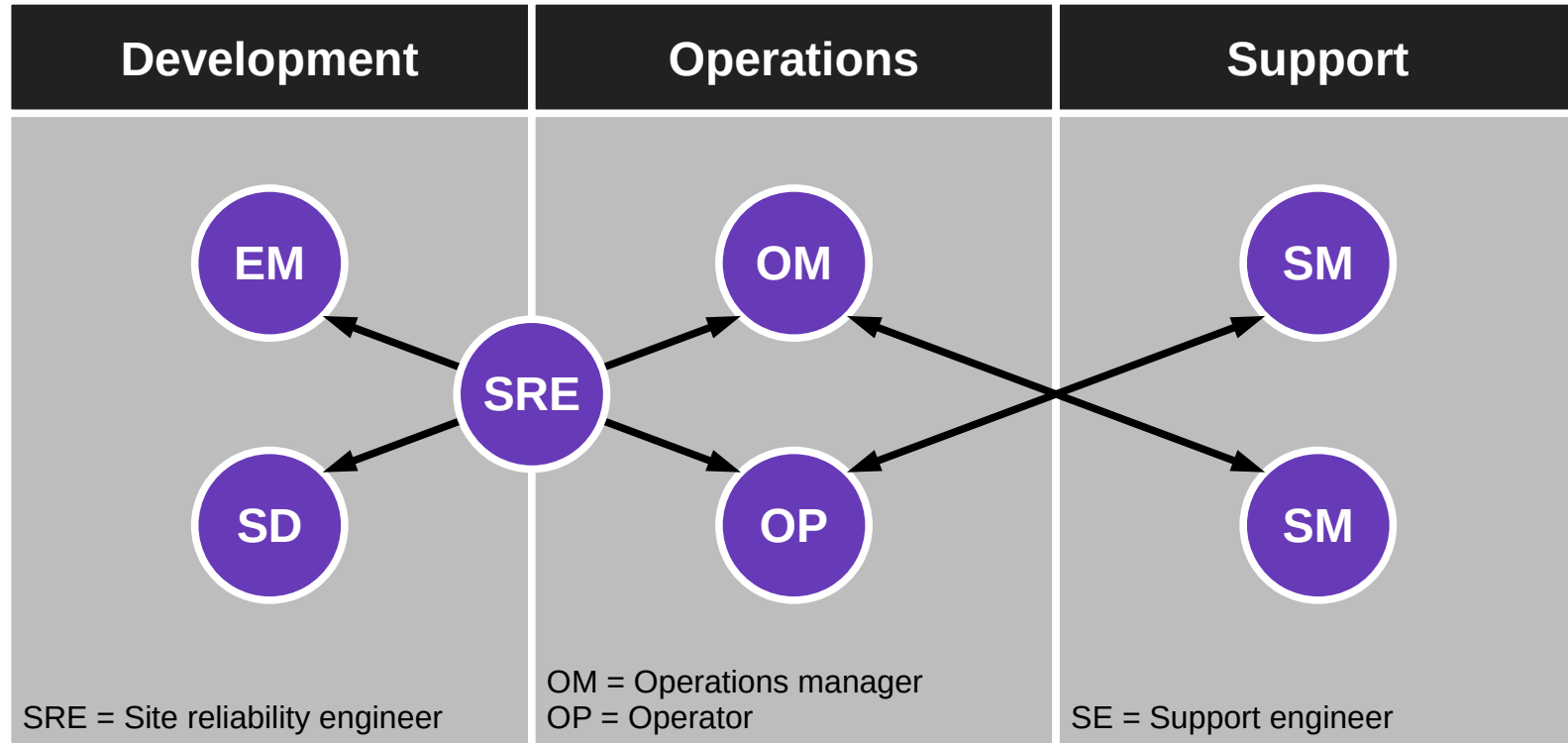
Product Development (Business Processes 1 / 5)



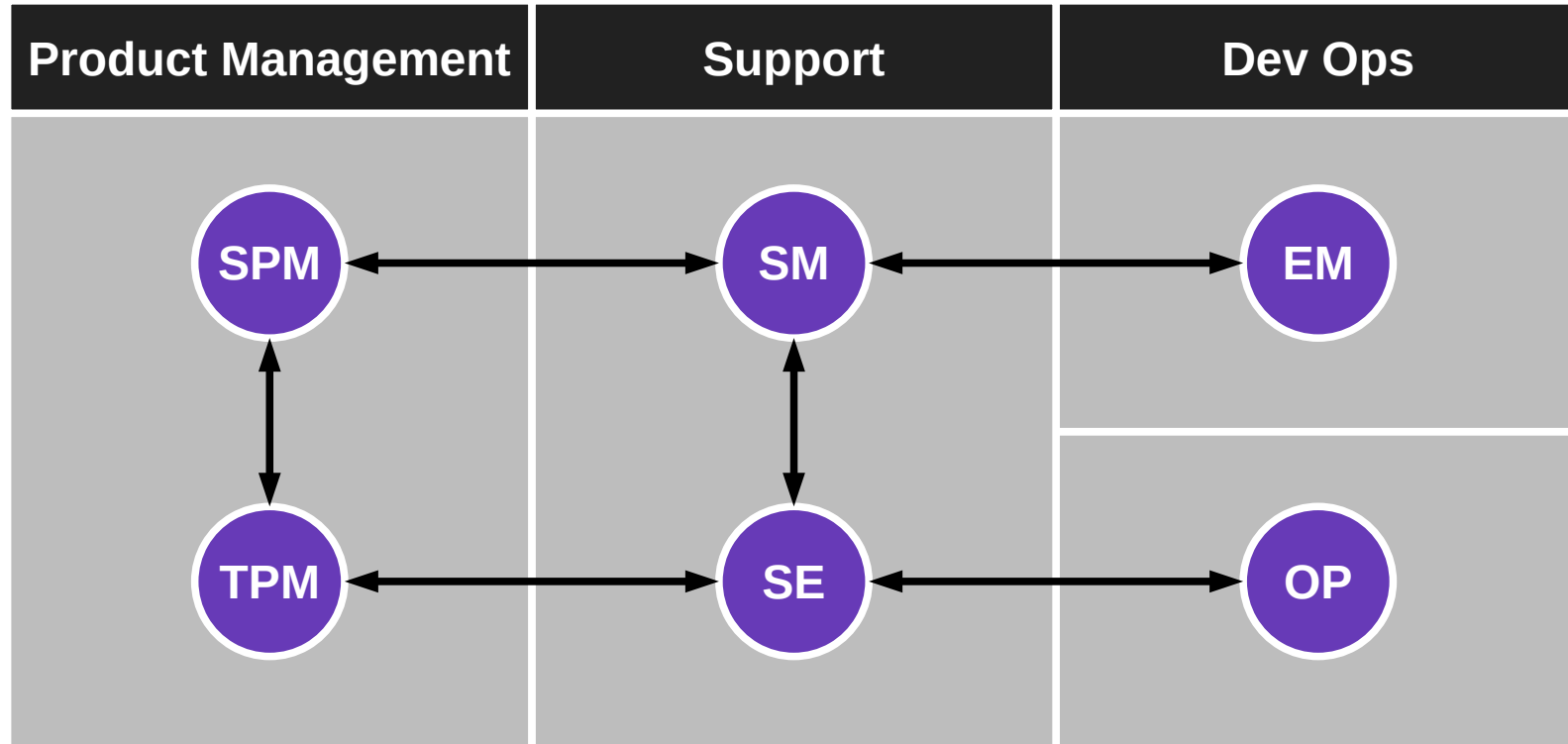
Customer Acquisition (Business Processes 2 / 5)



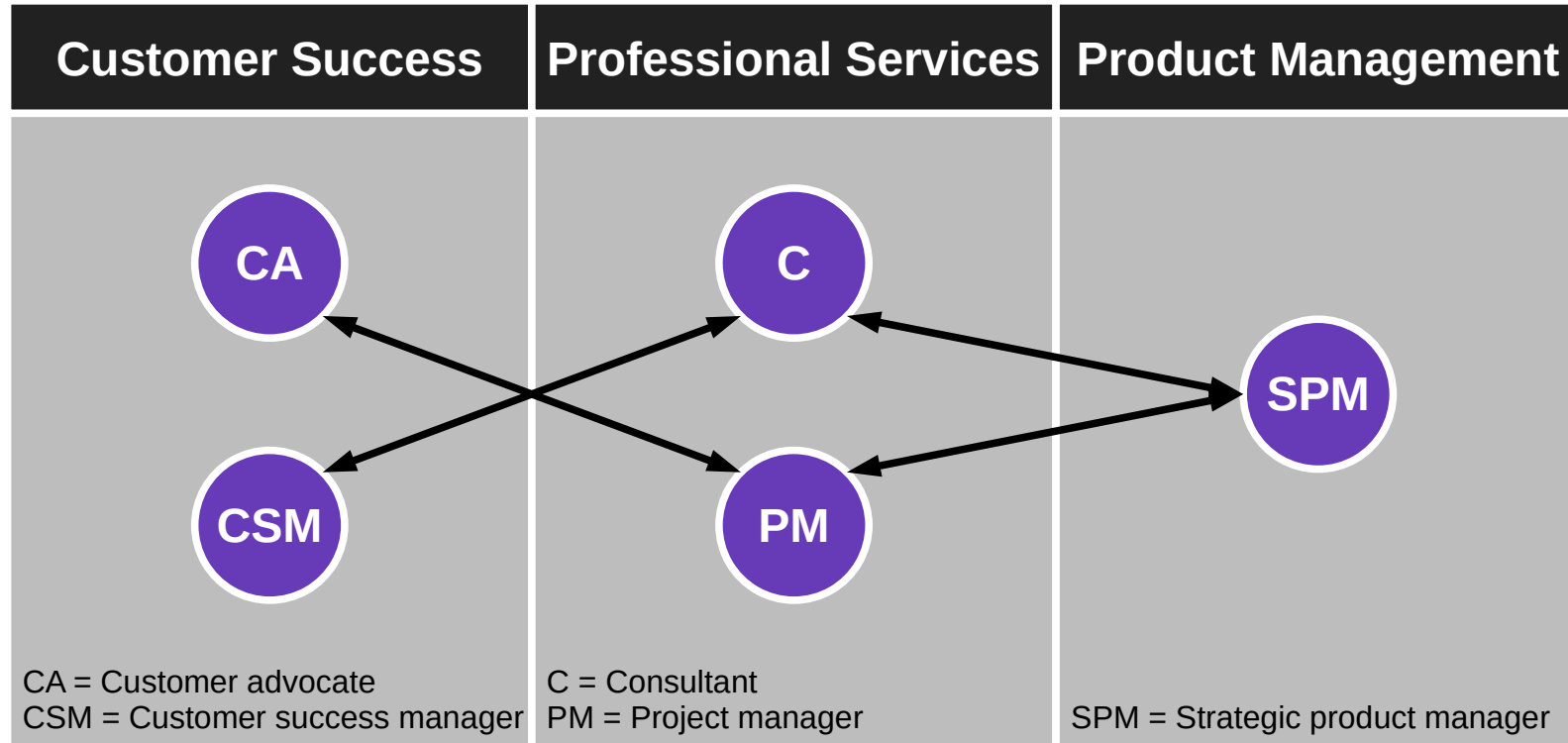
Product Operations (Business Processes 3 / 5)



Customer Support (Business Processes 4 / 5)



Customer Success (Business Processes 5 / 5)



Summary

1. Products and vendors
2. Projects vs. product firms
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4. Business functions
5. Core business processes

Thank you! Questions?

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