

# 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



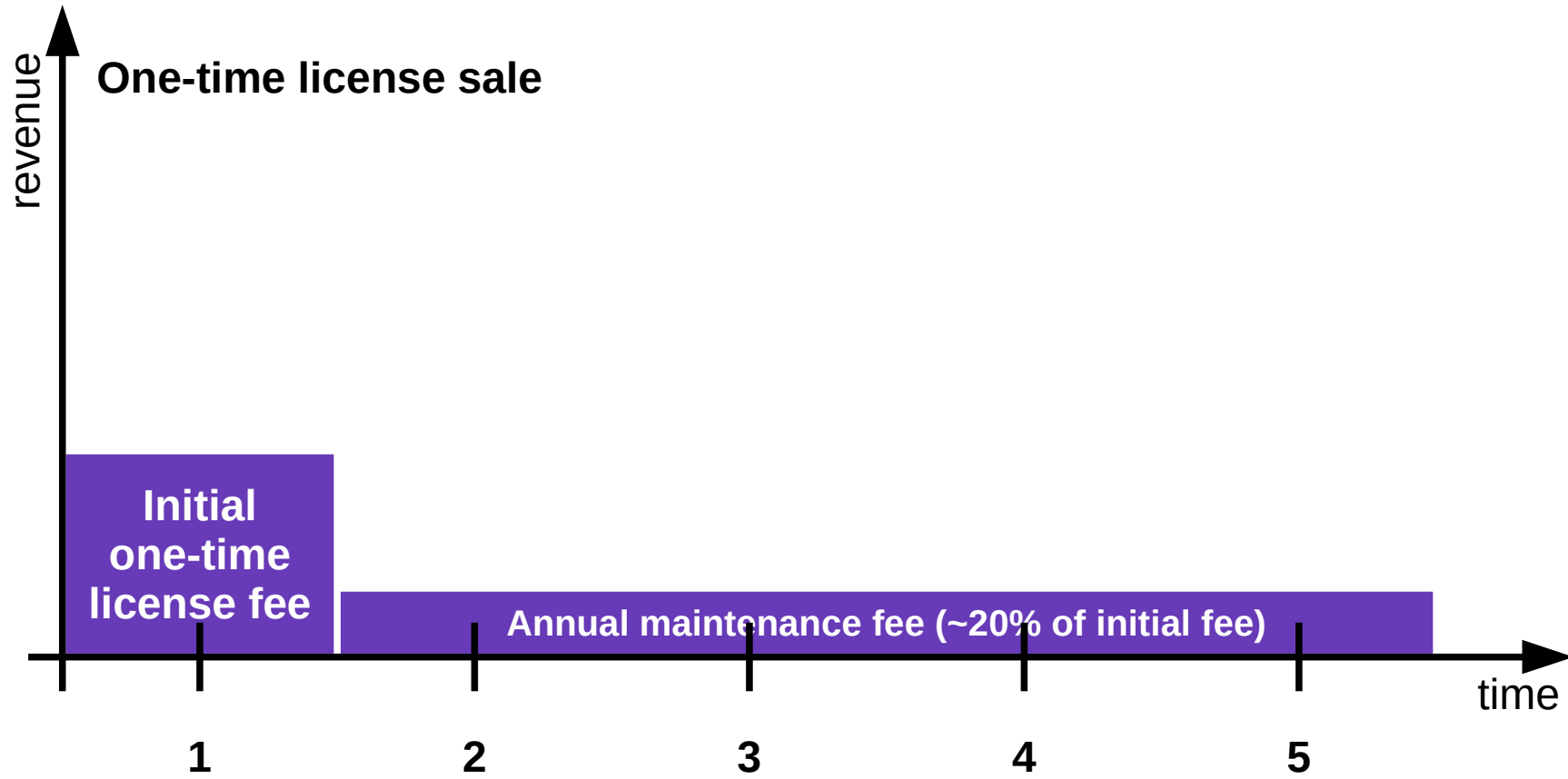
German SME  
Sugar 2010



Continental  
Stages 2010

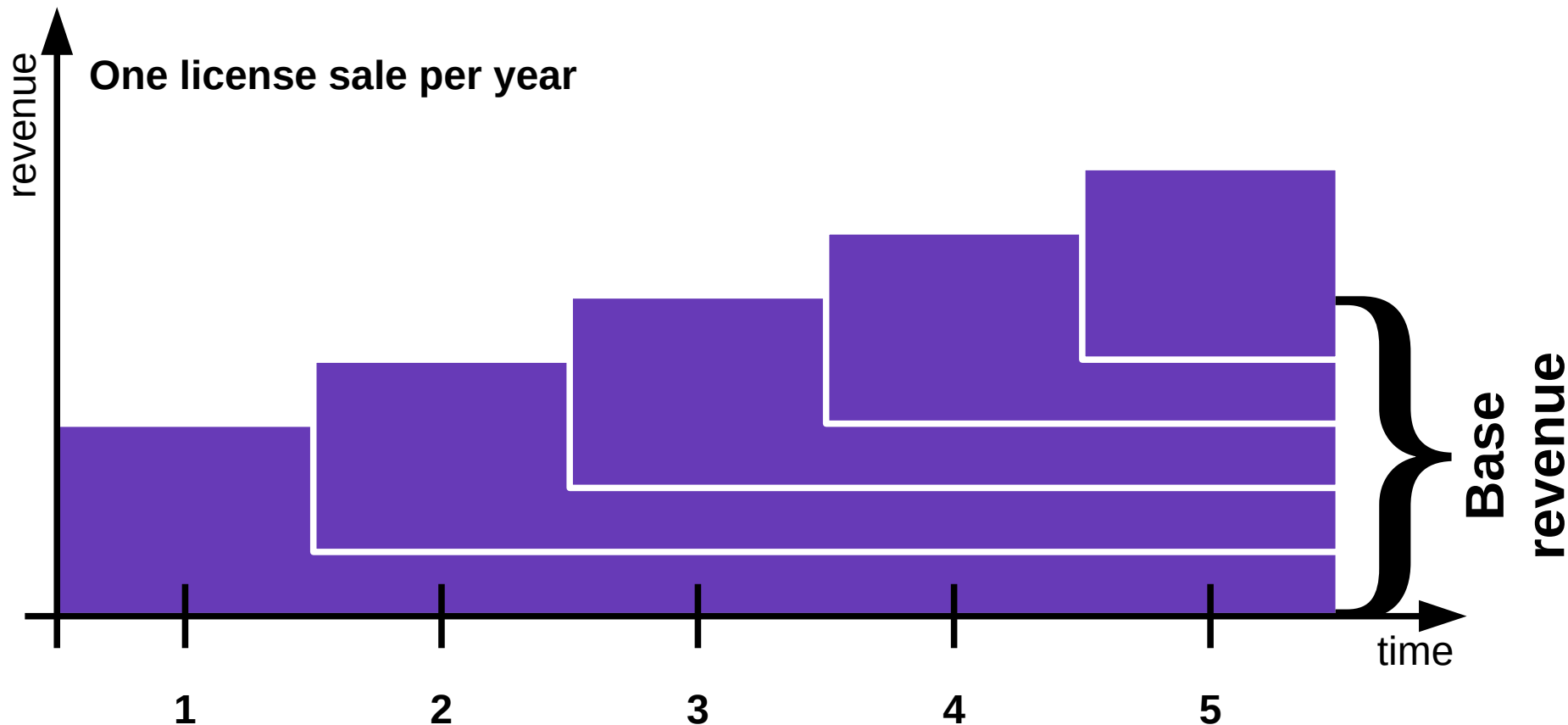


# Software Product Revenue

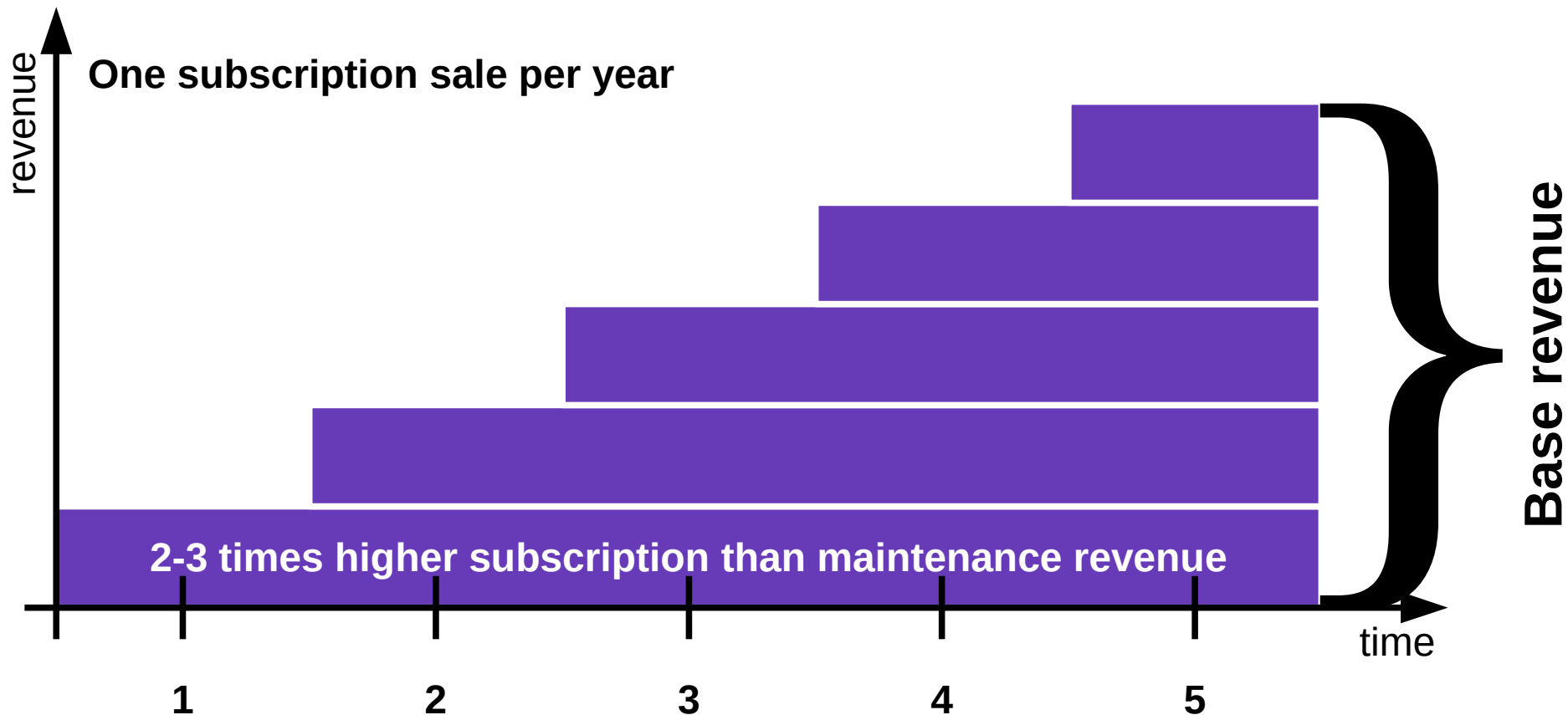




# Accumulating Traditional Software Product Revenue



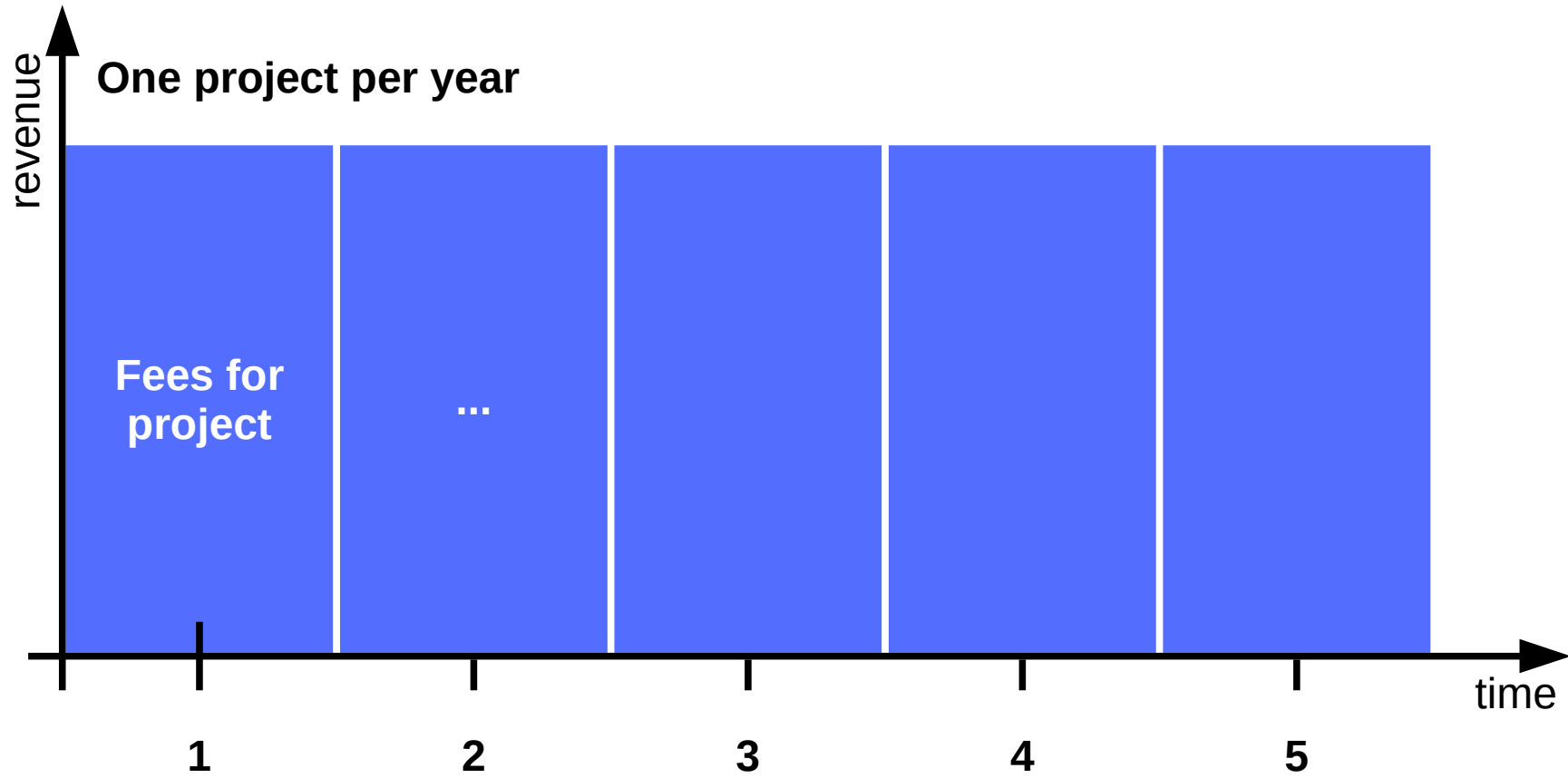
# Accumulating Software Subscription Revenue



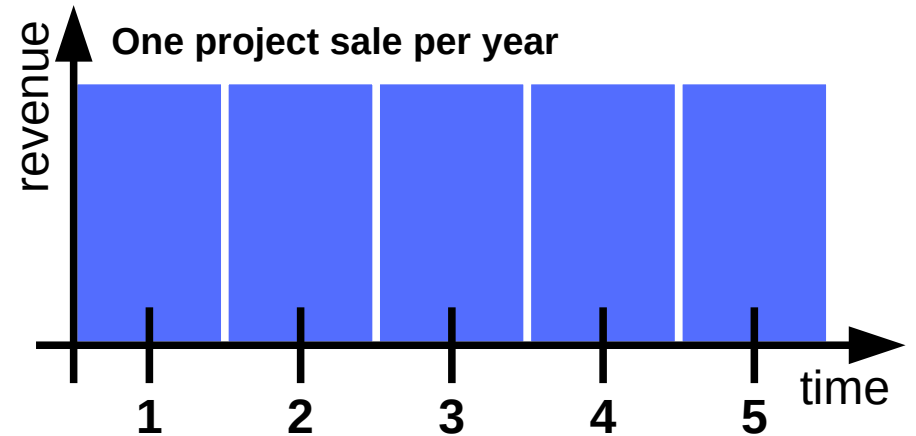
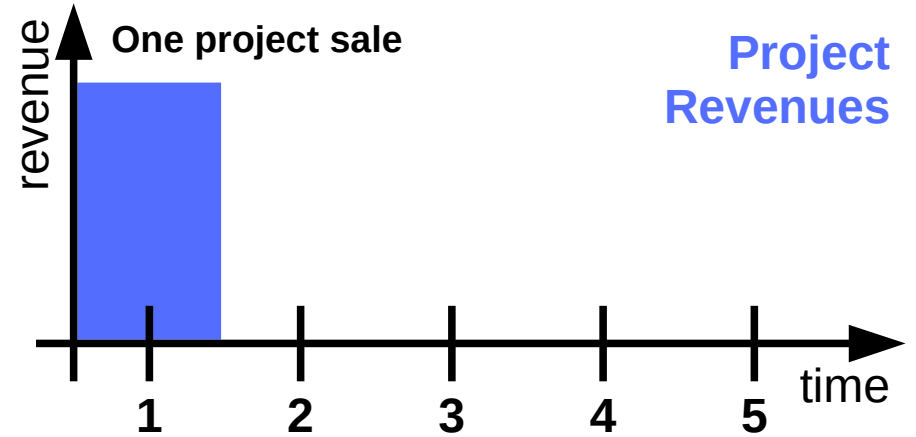
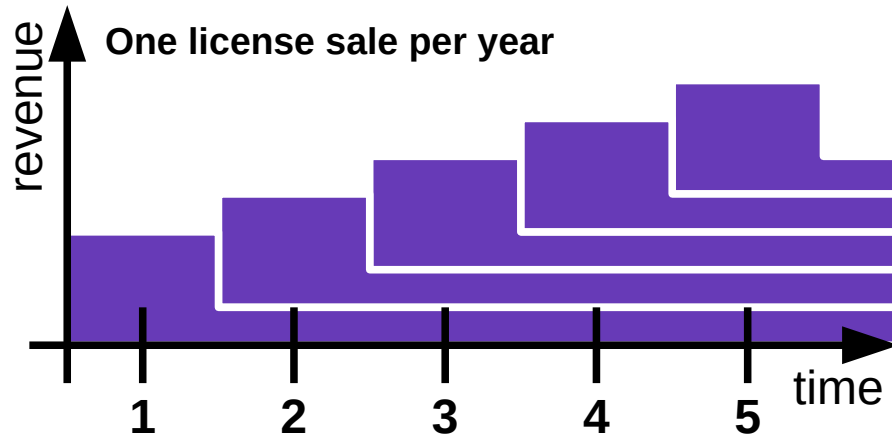
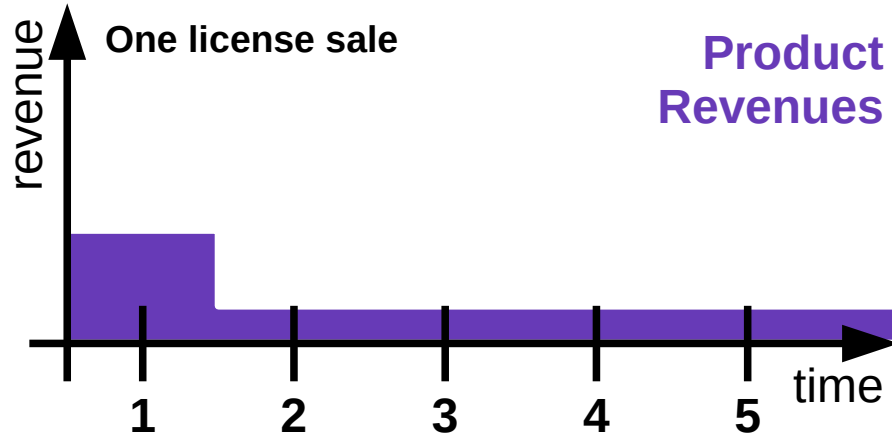
# Software Projects

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

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

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

# Quiz: Accenture vs. Salesforce (August 2020)

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–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 - cost of goods sold (COGS)

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

[3] Gross profit margin = net income / revenue

# Accenture vs. Salesforce

Metric   Ratio	Accenture	Salesforce
Market capitalization	US\$ 150 billion	US\$ 244 billion
Revenue	US\$ 43 billion	US\$ 17 billion
Net income	US\$ 4,5 billion	US\$ 0,1 billion
Price–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

# Development (Business Functions 2 / 9)

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



# Operations (Business Functions 3 / 9)

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

# 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

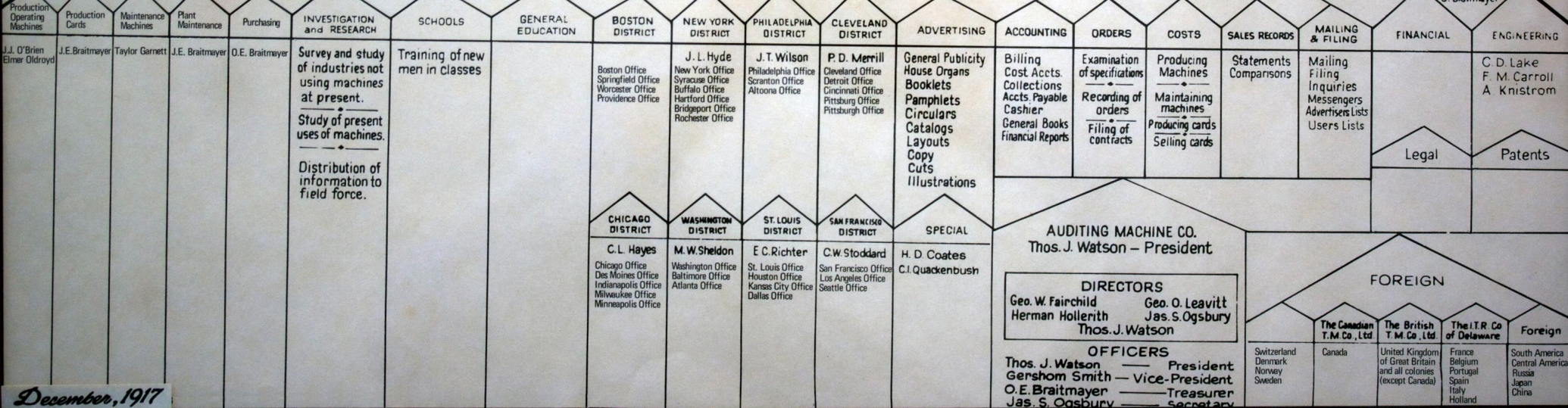
#### SALES

G. W. Spahr

#### OFFICE

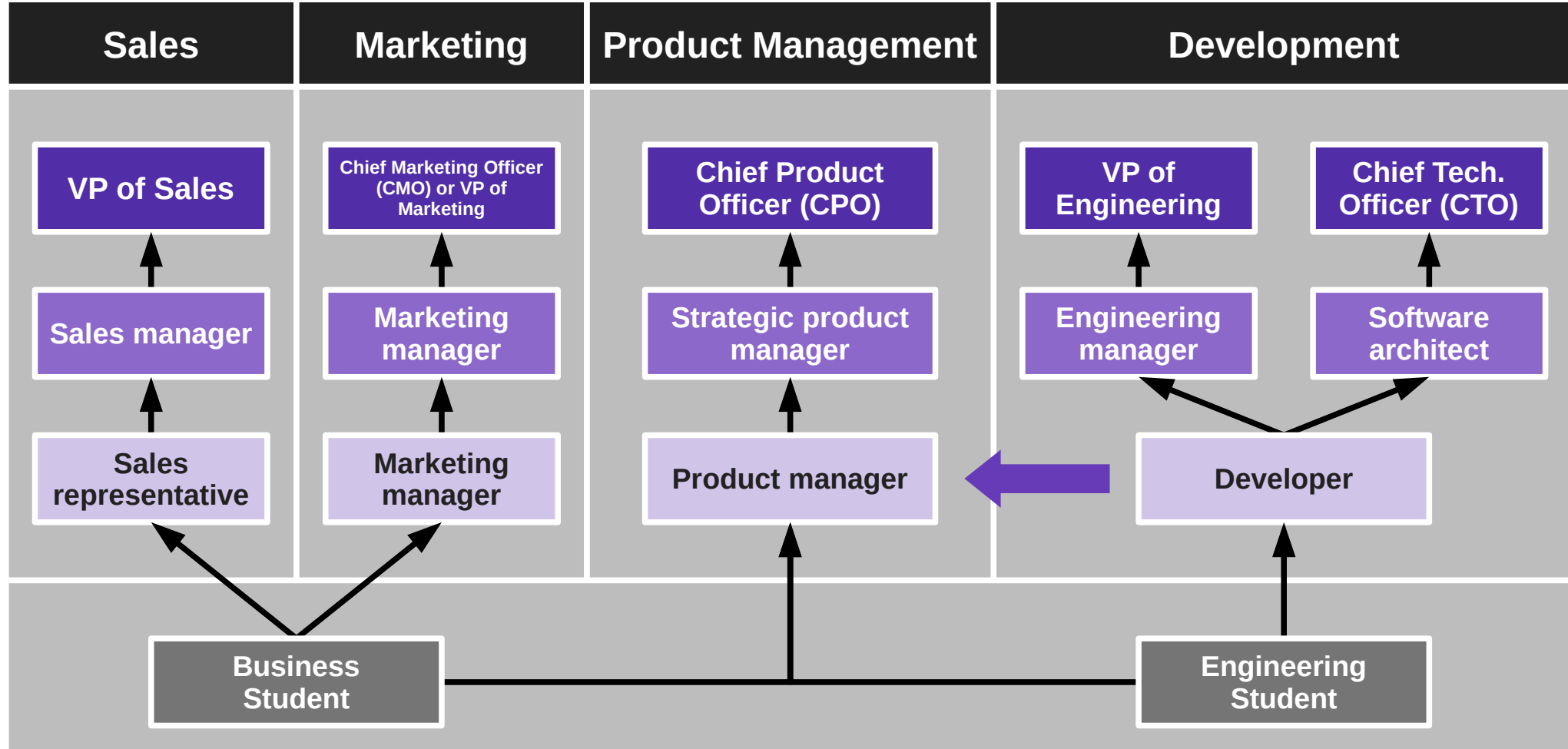
W. D. Jones  
Wm. MacLardy

ADMINISTRATION  
R. L. Houston  
O. Braitmayer





# Titles and Careers in a Software Company

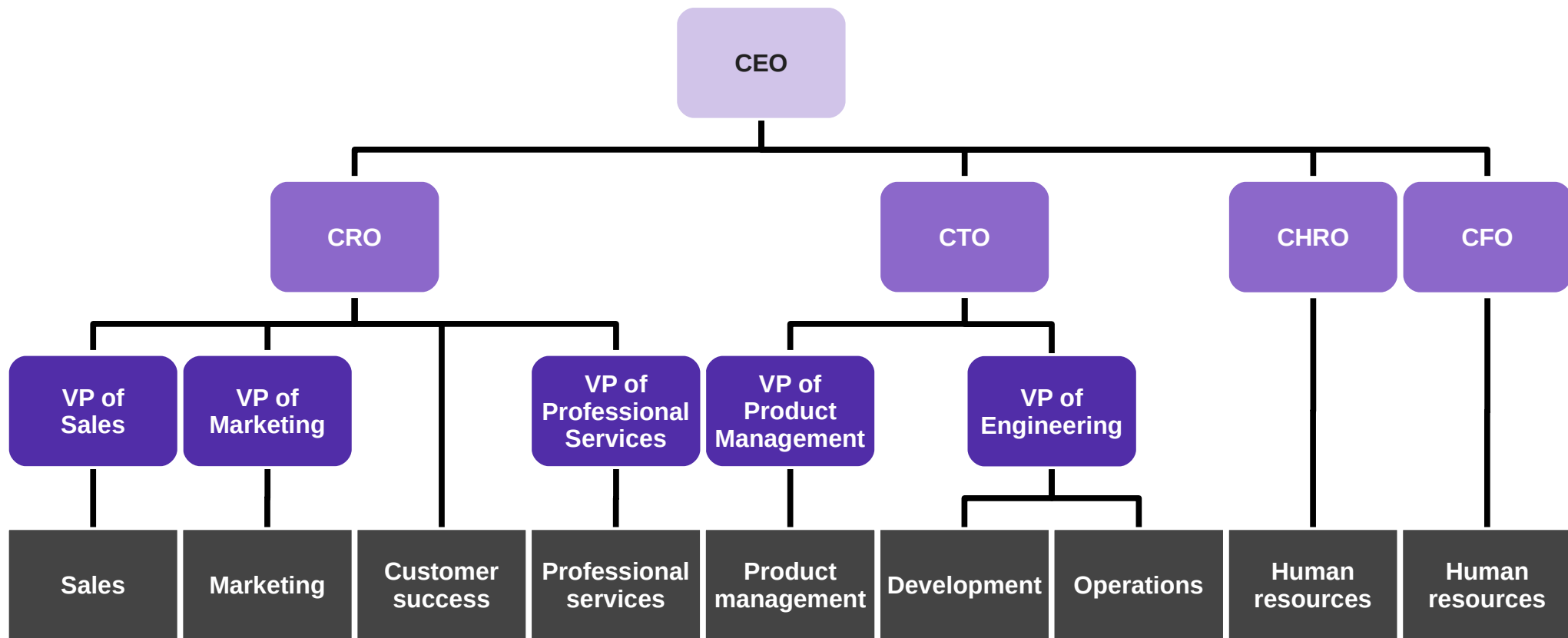


## 5. Core Business Processes

# Profit Center vs. Cost Center

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

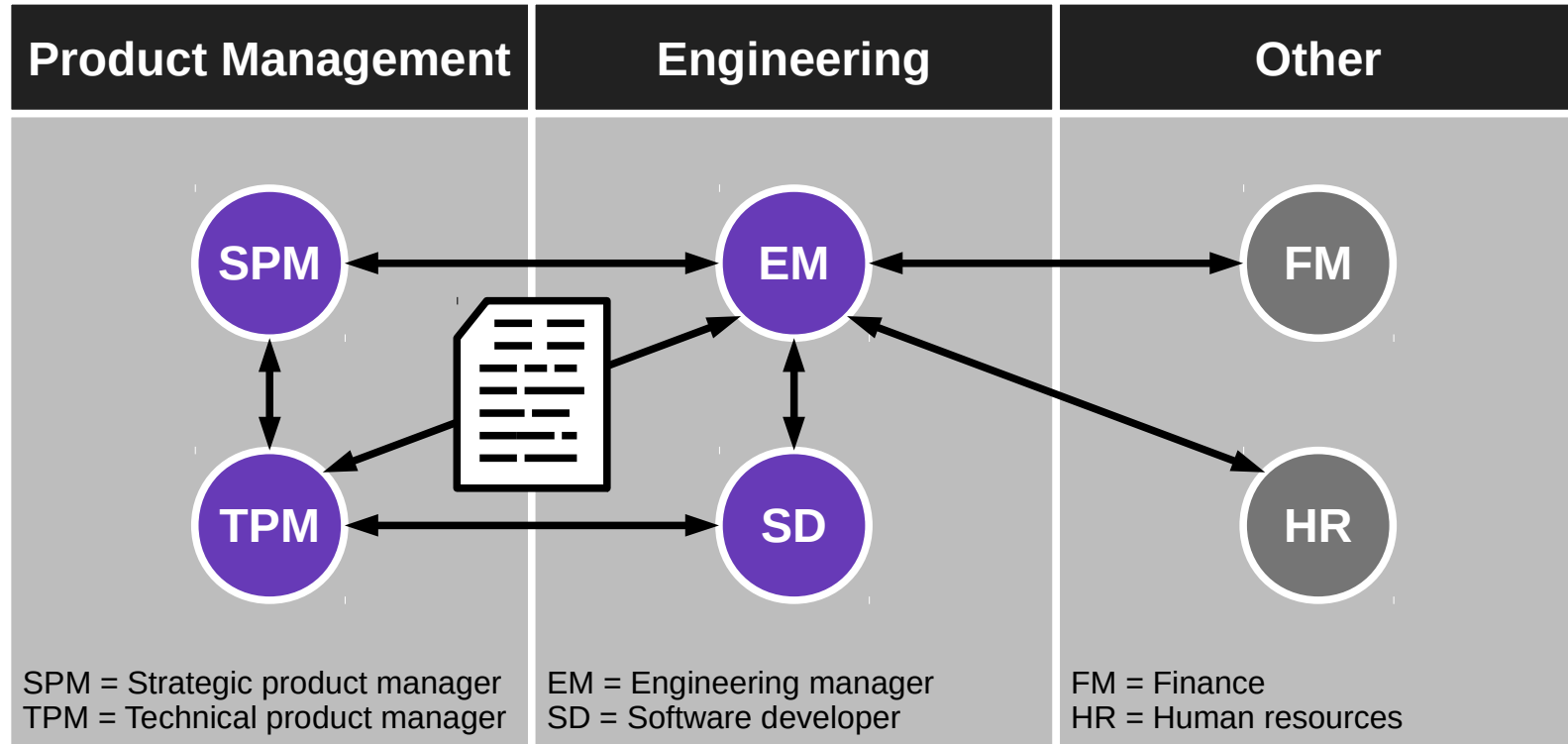
# Managerial Hierarchy (Line Reporting)



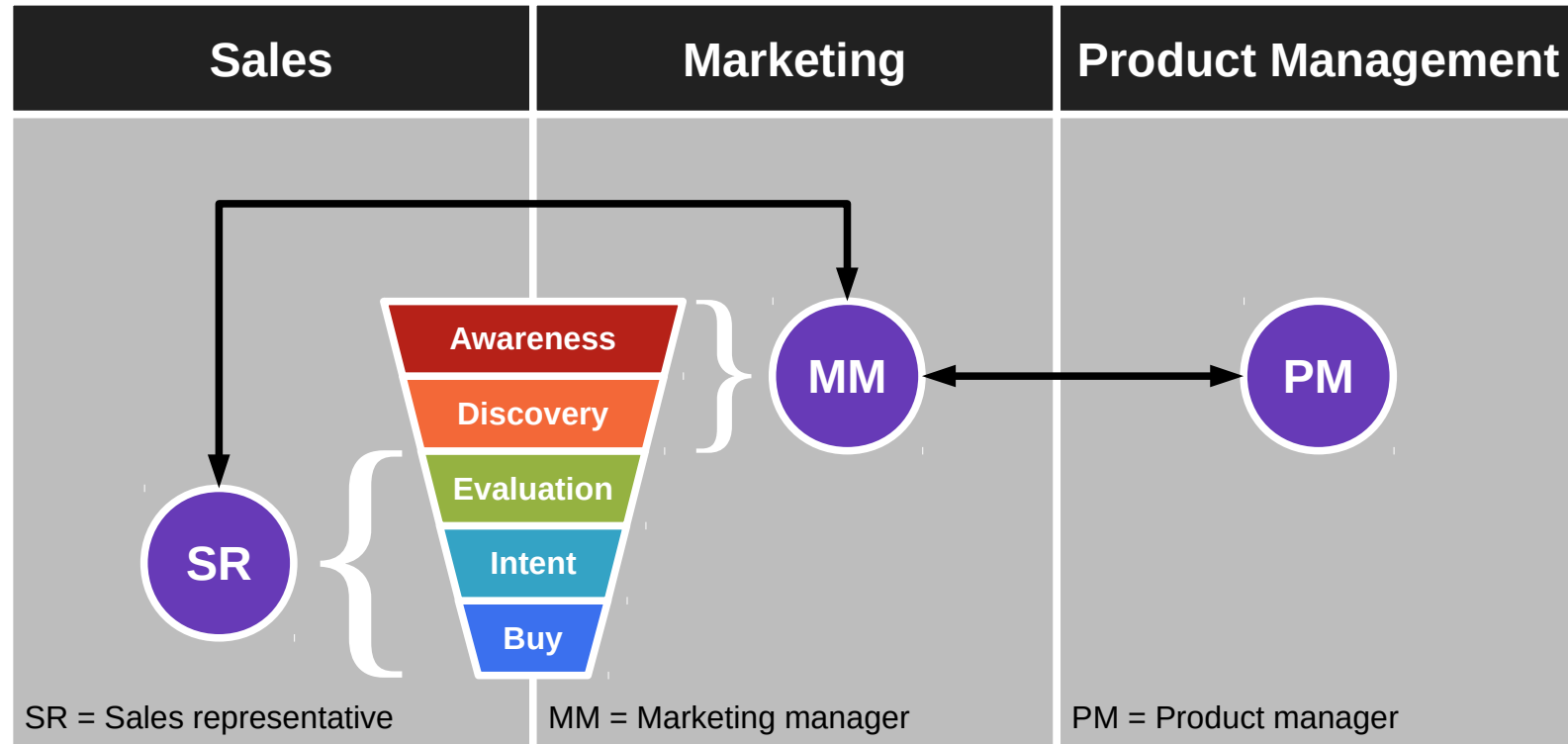
# Core Business Processes

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”)

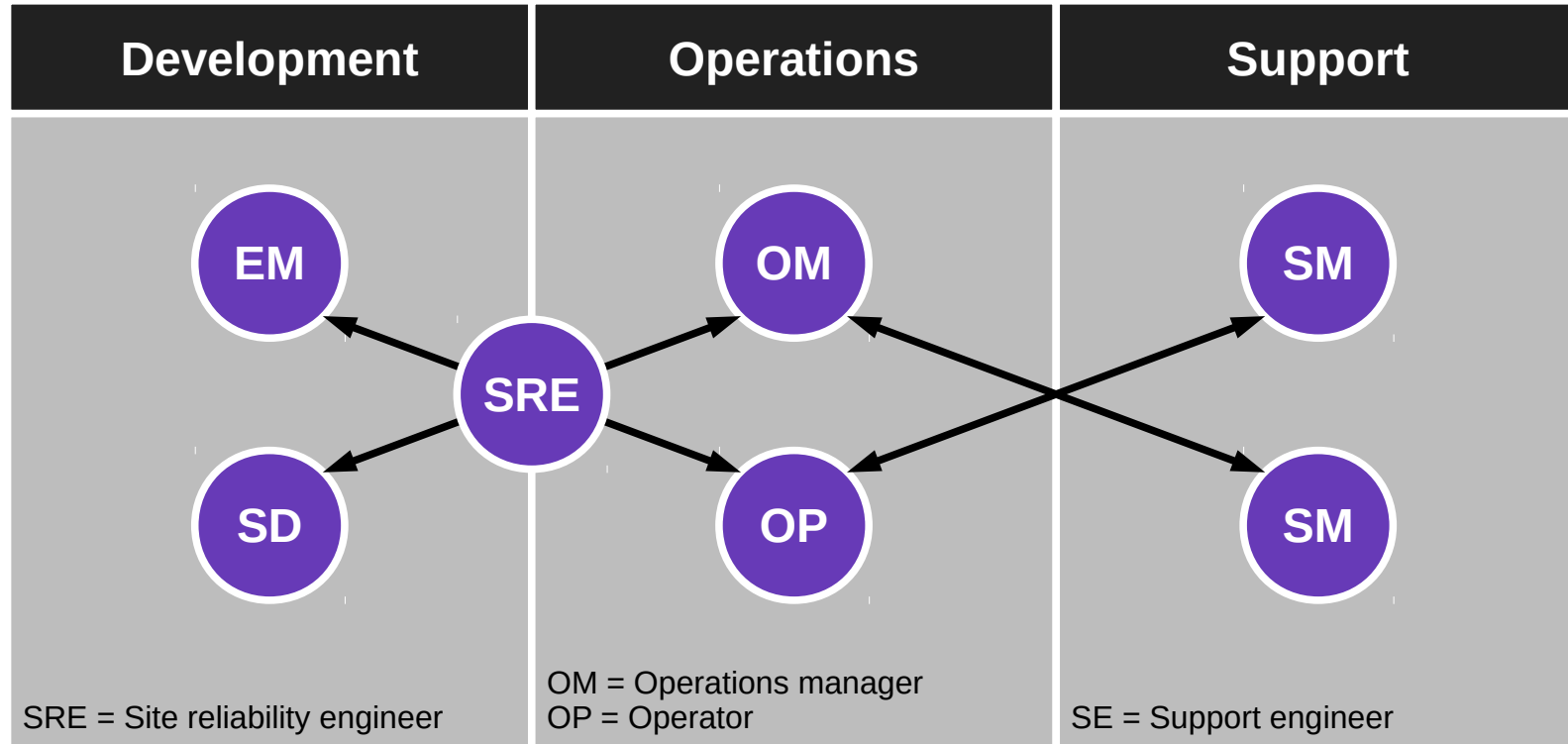
# Product Development (Business Processes 1 / 5)



# Customer Acquisition (Business Processes 2 / 5)

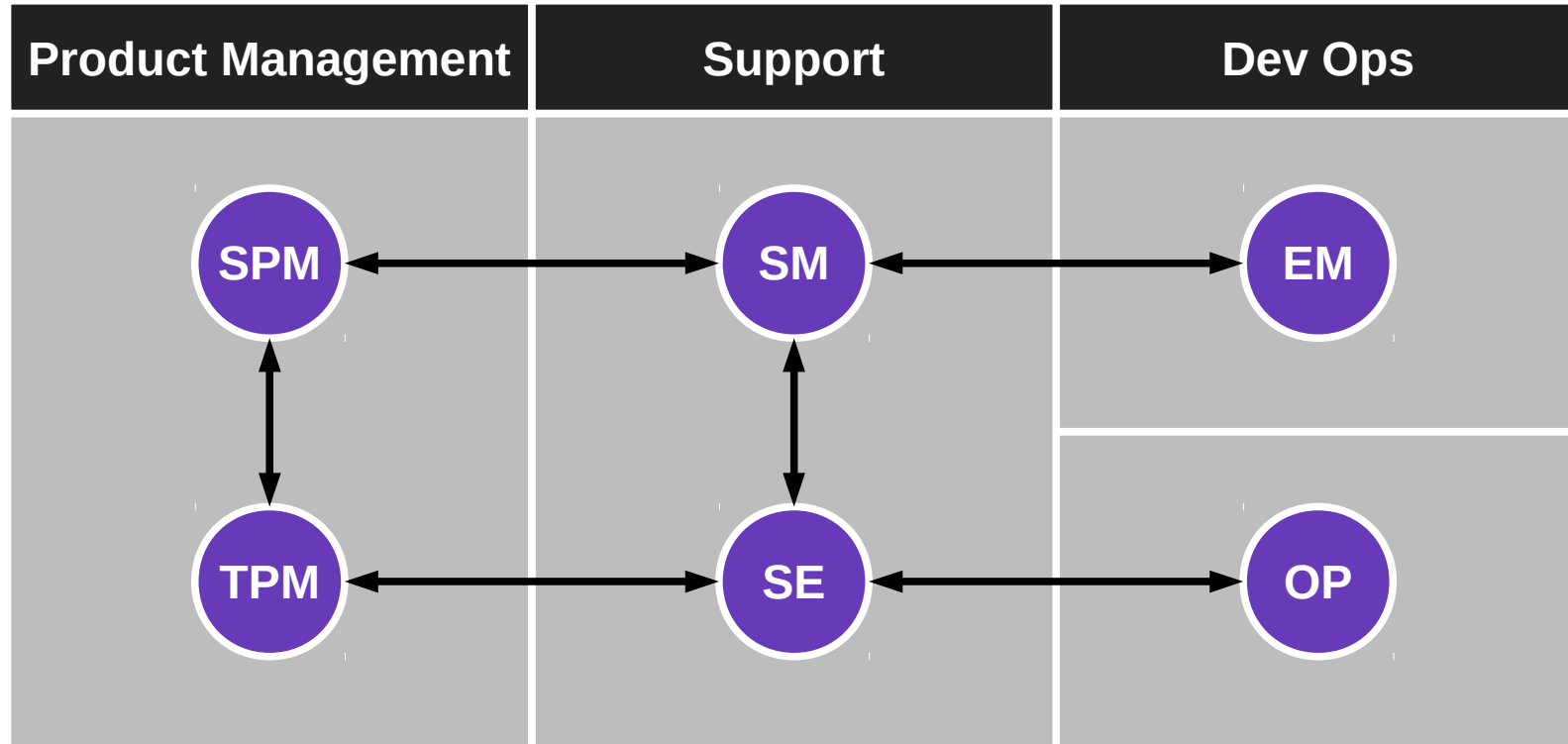


# Product Operations (Business Processes 3 / 5)

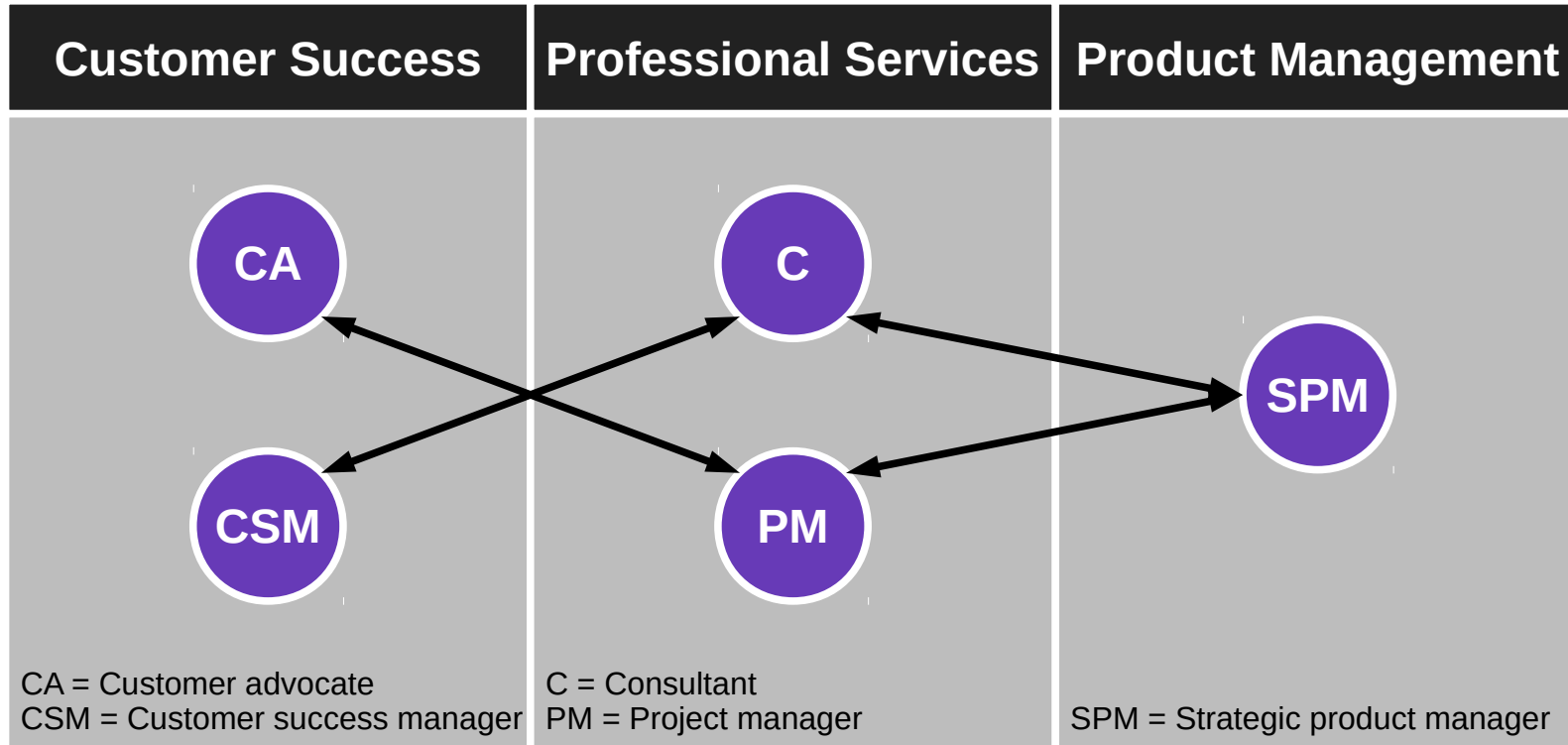




# Customer Support (Business Processes 4 / 5)



# Customer Success (Business Processes 5 / 5)



# Summary

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

# Thank you! Questions?

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