

Wolters Kluwer case study

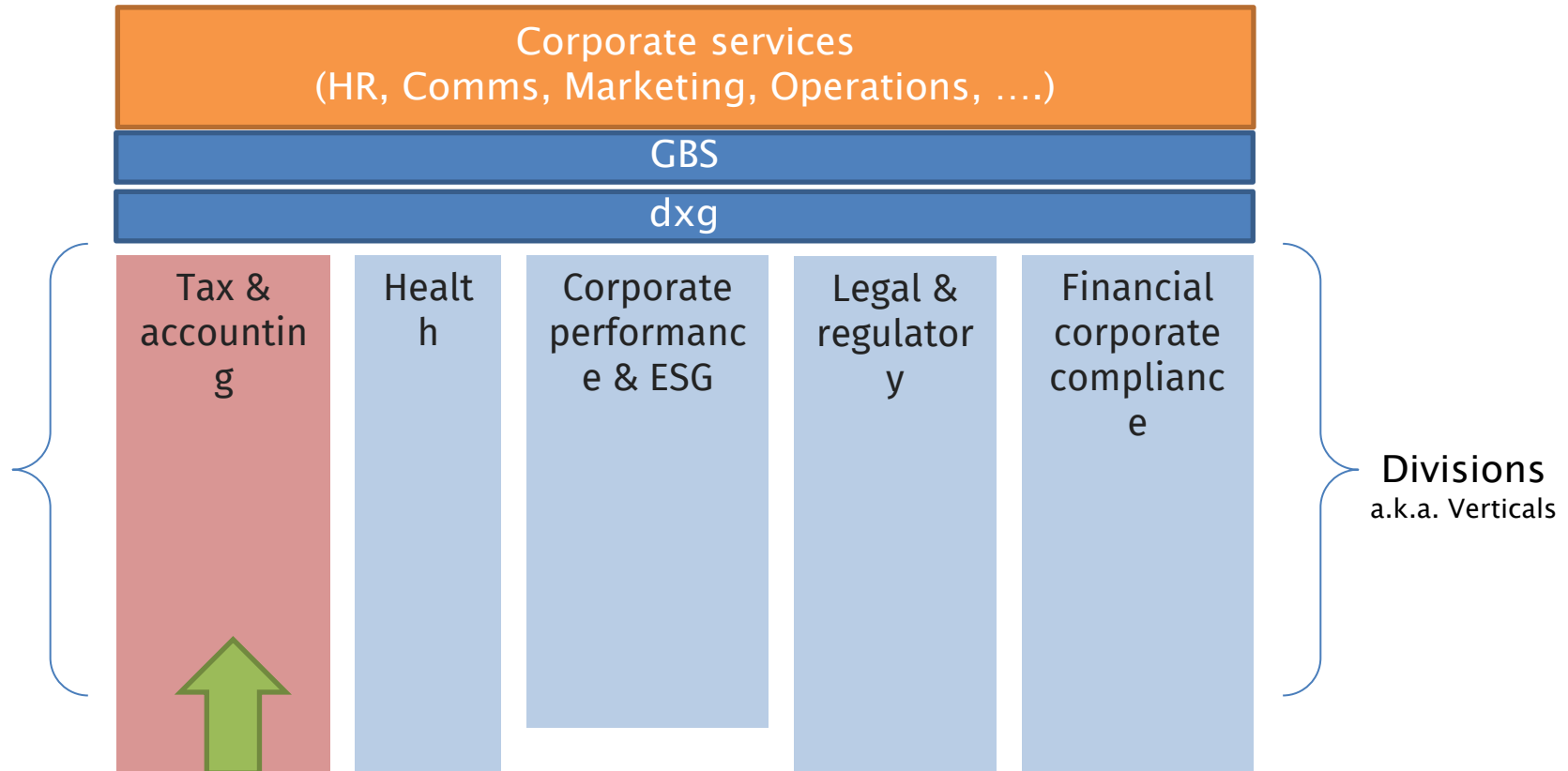


SoftEng
<http://softeng.polito.it>

Organizational structure

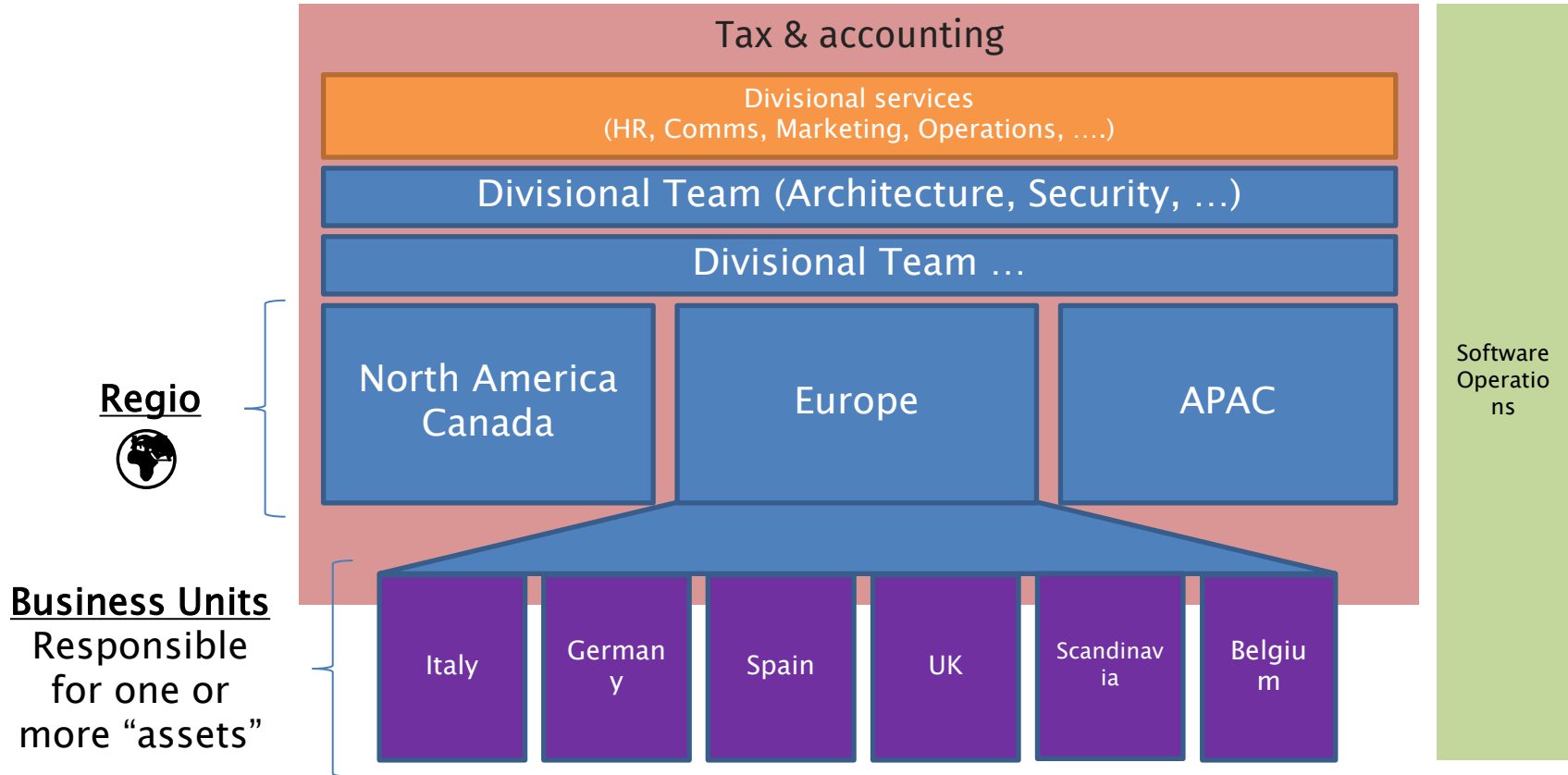


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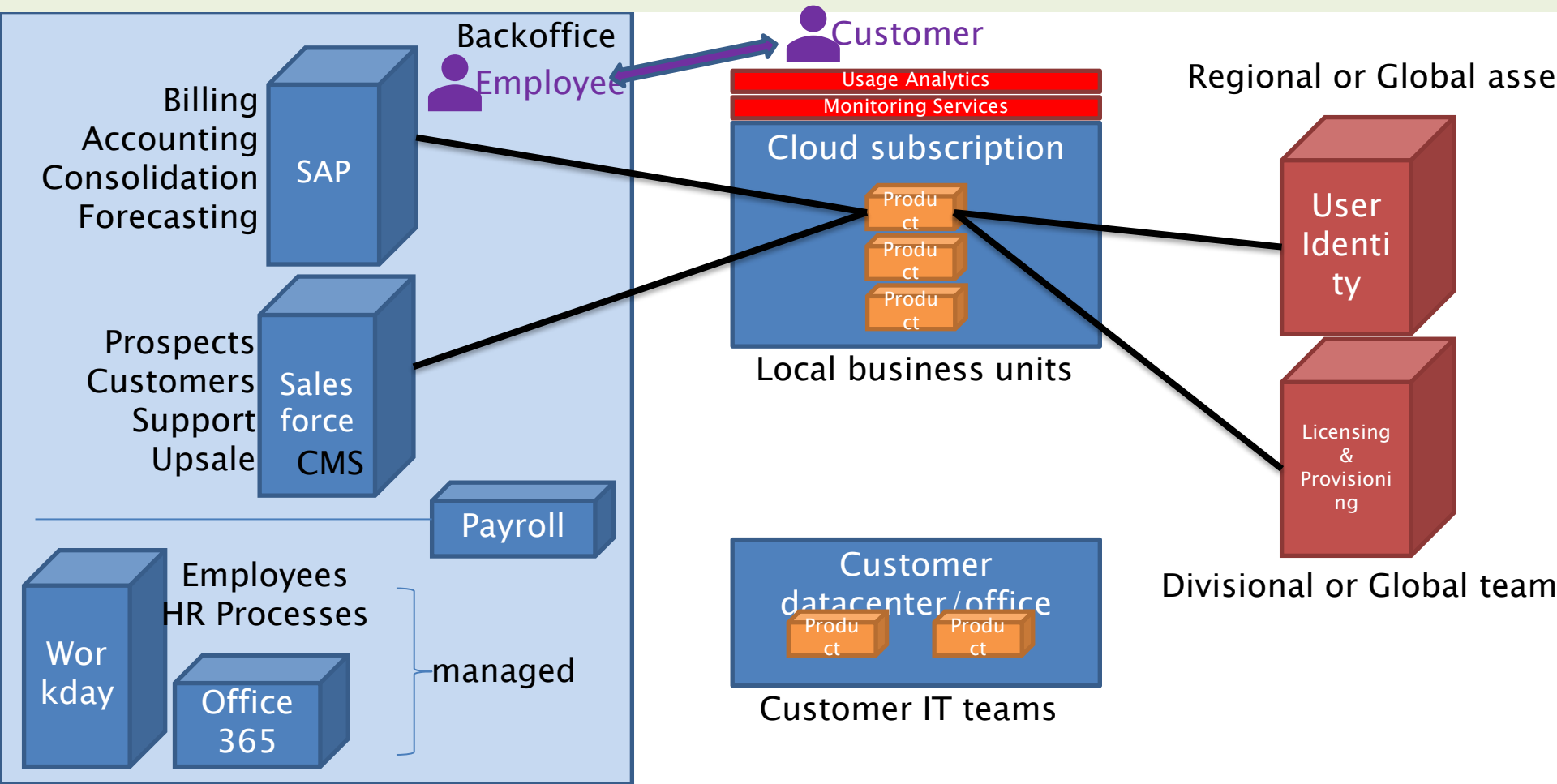
Organizational structure

- Functional
 - ◆ Corporate services
- Divisional
 - ◆ Tax, Health etc
- Geographical

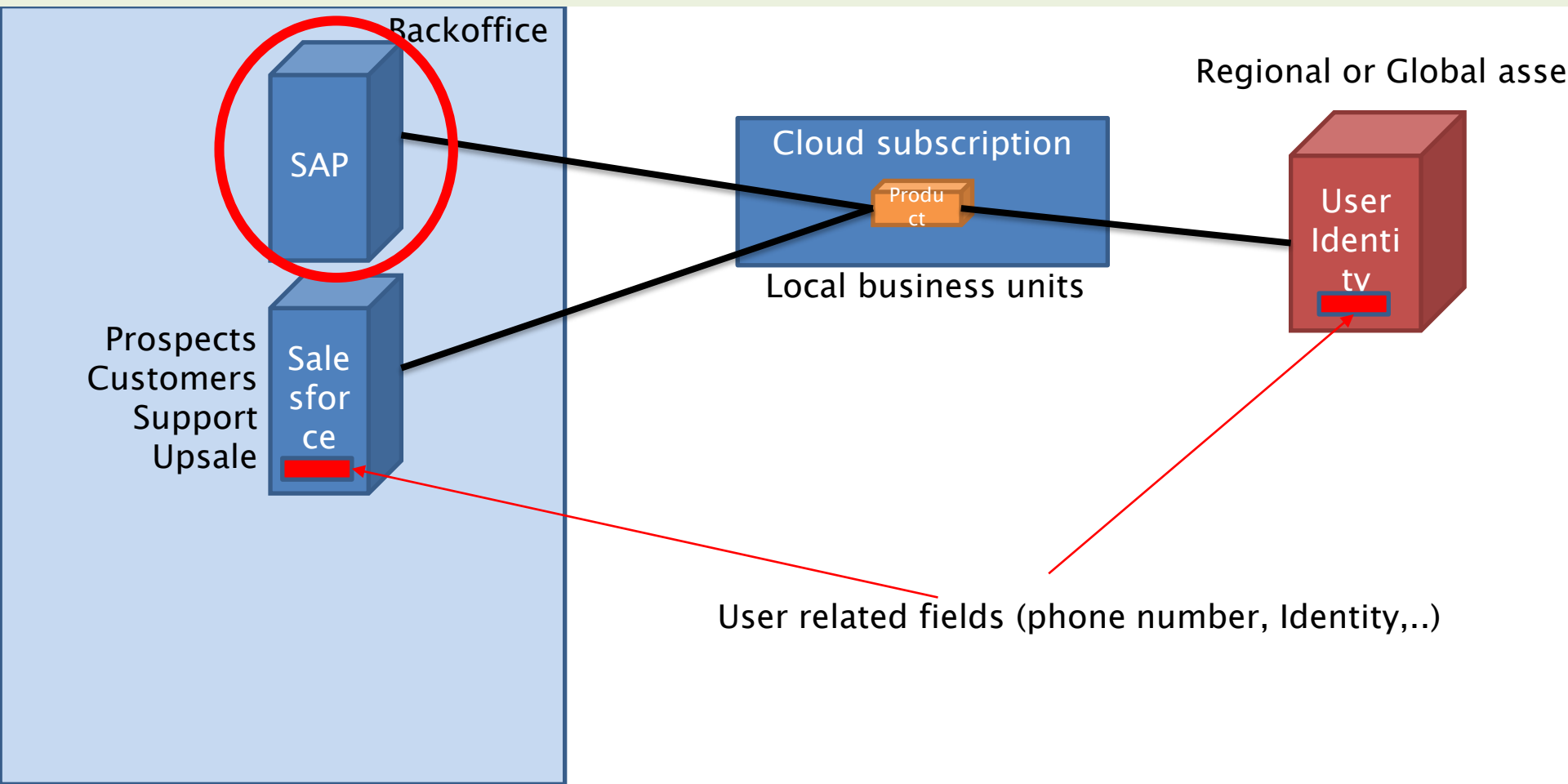
Architecture

Enterprise Architecture

Example phone number IDP and CMS

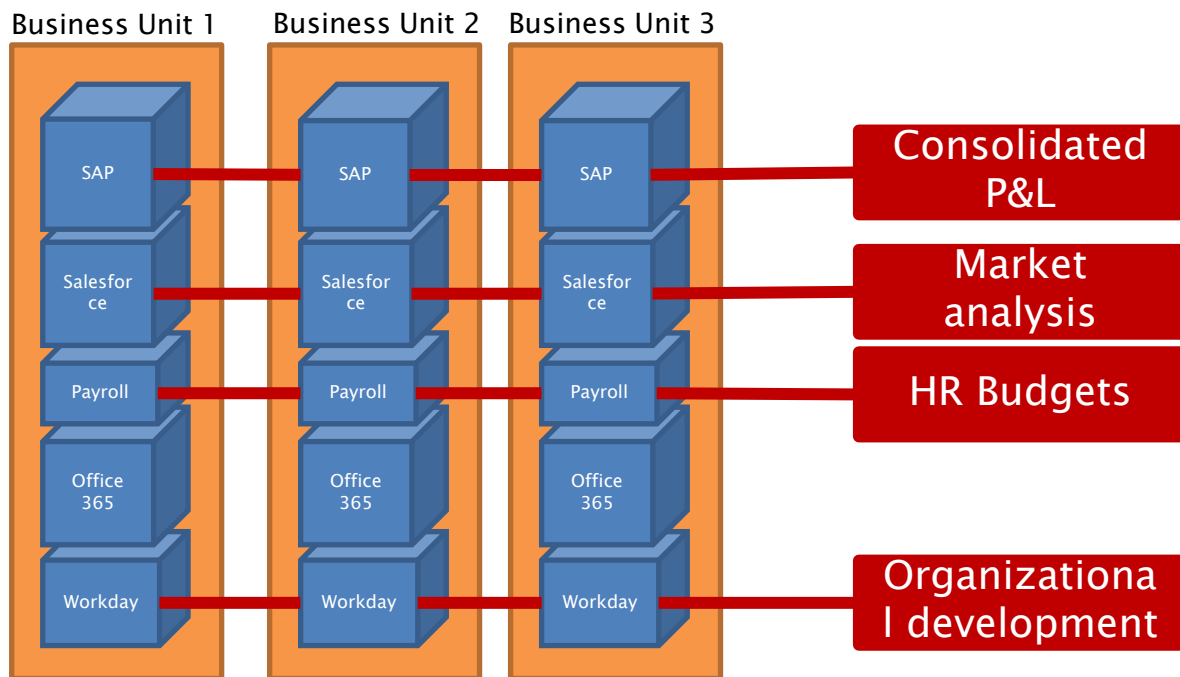


Enterprise Architecture – Challenges



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- Data replication

Enterprise Architecture – Challenges



The ability of consolidating data flows across business units, region and division is strategic for a good decision making process.



This can cause delays at BU level, who have to implement standard processes instead of using tailor made solutions.

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- 3 business units, 3 parts of IS
 - ◆ Conway law
 - As a result
 - ◆ Data aggregation problems
 - ◆ ‘silos’ effect

Costs

- Cost components
- TCO
- Capex Opex

Cost components

| | Development | | Live | | | |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Costs/Year | 1 | 2 | 3 | 4 | 5 | 6 |
| Operations | € 90,000 | € 50,000 | € 190,000 | € 156,000 | € 156,000 | € 156,000 |
| Development | € 900,000 | € 900,000 | € 350,000 | € 250,000 | € 250,000 | € 250,000 |
| Integration | € 315,000 | € 660,000 | € 607,500 | € 630,000 | – | – |
| Maintenance | – | – | € 150,000 | € 200,000 | € 200,000 | € 200,000 |
| Total | € 1,305,000 | € 1,610,000 | € 1,247,500 | € 1,236,000 | € 606,000 | € 606,000 |
| one off setup prod | € 60,000 | | | Y4 increase | Y5 increase | Y6 increase |
| one off setup non-prod | € 40,000 | € 100,000 | | 20% | 20% | 20% |
| runnig costs prod | € 80,000 | | | | | |
| runnig costs non-prod | € 50,000 | € 130,000 | | | | |

- Business cases are most of the time presented in 3 to 5 years timeframes
 - Setup costs are always separate
 - Maintenance costs are separate (opex)

Capex and Opex

CapEx (Capital Expenditure)

Refers to the funds used by a company to acquire, upgrade, and maintain physical assets. In the case of software development, long-term investments in software infrastructure or the costs of developing a custom software solution that will be used over several years. This could include the upfront costs of research, design, purchasing necessary hardware, and the software development itself.

There are various methods to calculate depreciation

straight-line

units of production

declining balance

This choice can affect the annual depreciation expense !!



Depreciation Aspect: Capital expenditures are typically considered assets on a company's balance sheet. These assets depreciate over time. Depreciation is the process of allocating the cost of a tangible asset over its useful life. For software, this means the initial development cost is not expensed entirely in the year it's incurred but is spread over several years, reflecting the period the software is in use.

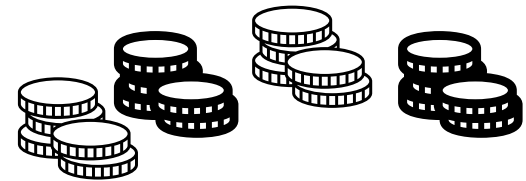
Capex and Opex

OpEx (Operating Expenditure)

Refers to the expenses required for the day-to-day functioning of the business. This includes rent, utilities, and salaries. In the context of software development, OpEx would include costs related to the ongoing use and maintenance of software. This includes cloud hosting fees, software licenses, updates, support services, and the salaries of employees involved in these tasks.

Non-Depreciable: Unlike CapEx, operating expenses **are fully deductible in the year they are made**. They do not depreciate over time because they are consumed within the operational year.

- Cloud costs
- Licensing costs
- Maintenance
 - Bug fixing
 - Support...



Capex and Opex

Key Differences in the Context of Software Development

- **Nature of Expenses:** CapEx is about investing in future capabilities (like building a new software product), while OpEx is about the costs to manage and maintain existing capabilities (like software subscriptions or support).
- **Financial Treatment:** CapEx is capitalized - meaning the costs are amortized over several years. OpEx is expensed - meaning the costs are fully deducted in the period they are incurred.
- **Impact on Cash Flow:** CapEx usually requires a significant upfront investment, which impacts cash flow more dramatically at the outset. OpEx is generally more predictable and spread out over time.
- **Strategic Implications:** Choosing between CapEx and OpEx can have strategic implications for a business. For instance, some companies might prefer OpEx for software through cloud services to avoid the upfront costs and complexities of CapEx.

Capex and Opex: Conclusions



1.Reduced Taxable Income: Each year, a portion of the asset's cost is expensed through depreciation. **This depreciation expense is deducted from the company's income on its income statement, reducing its taxable income.**

2.Tax Implications: By depreciating an asset over several years, a company can spread out its tax deductions. This can have a significant impact on the company's financials, as it lowers the taxable income each year during the asset's depreciation period, **hence reducing the amount of taxes owed in those years.**

Example

Suppose a company purchases a new software system for \$100,000 (a CapEx investment) and expects it to be useful for 5 years. **Using straight-line depreciation, the company will depreciate \$20,000 each year for 5 years.** Each year, this \$20,000 depreciation expense **will reduce the company's taxable income,** thereby decreasing its tax liability for that year.



In summary, CapEx, when depreciated over time, helps in spreading out the tax deductions associated with the investment, impacting both the reported earnings and the tax liabilities of a company.

TCO – Total cost of ownership



Infrastructure costs
Development team costs
Licenses costs

Development tools costs
Training
Support
Marketing
Sales
Fixed costs
Taxes
Maintenance
Security

