POLITECNICO
MILANO 1863

Accounting, Finance & Control

Management Reporting

(Corporate Costs)

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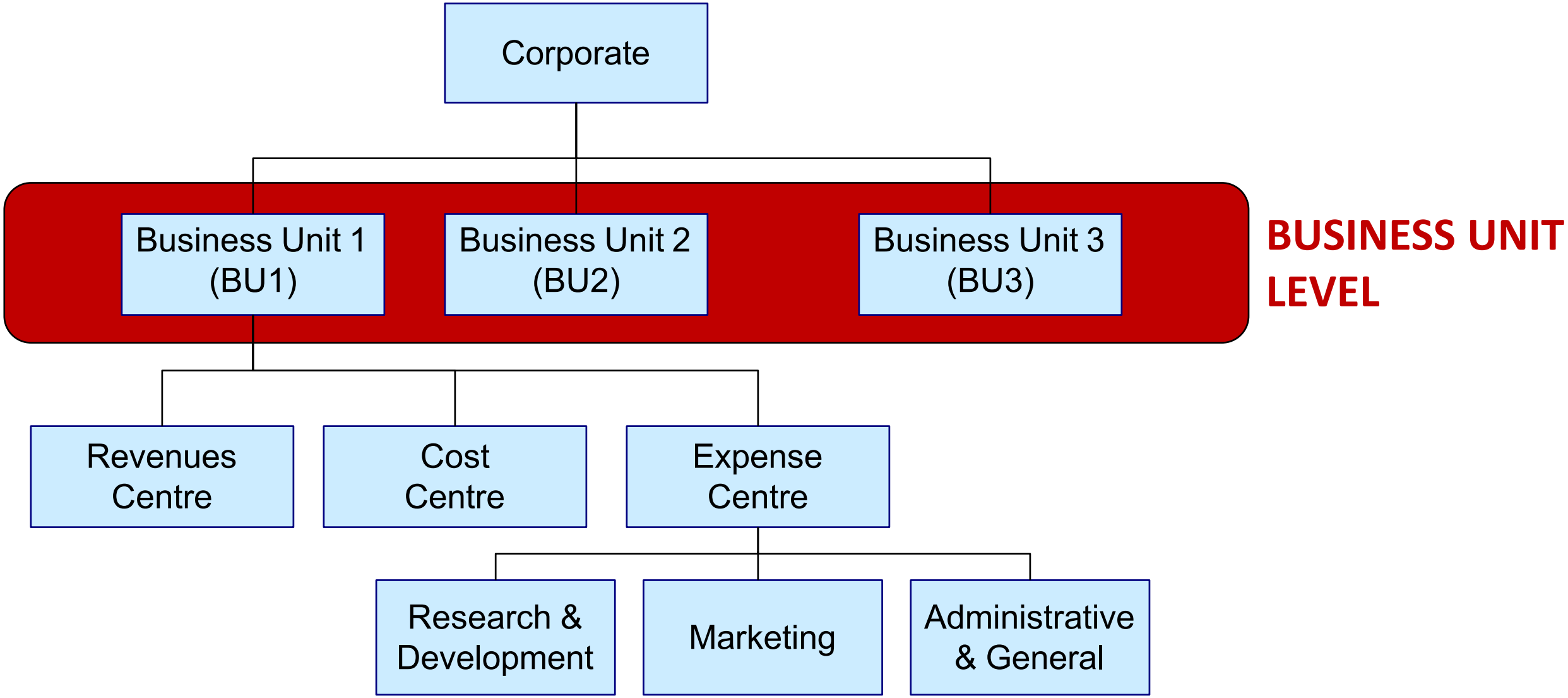
Hierarchy Levels: A reference framework for us



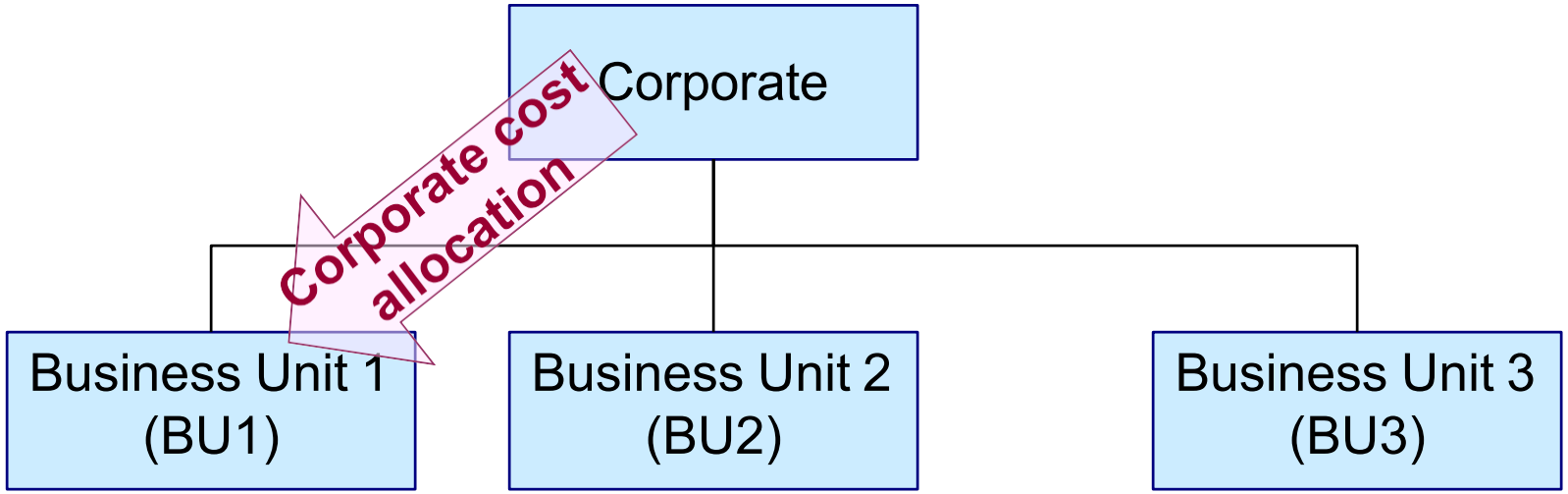
Requirements for Reporting vs Types of Indicators

Hierarchy	Value-based Indicators	Accounting-based Indicators	Value-Drivers
Corporate	Backbone of the reporting system • EV or E	ROE NPM	Selected drivers for competitive advantages
Business Units	Sometimes • Cash generation	Backbone of the reporting system • ROI or ROA • RI or EVA** • Segment margin*	Selected drivers for competitive advantages
Responsibility Centres		Revenues Costs/Expenses	Backbone of the reporting system

*** Economic Value Added (EVA) = NOPAT – WACC * Invested Capital*

** Segment Margin = Revenues – Direct Costs = Revenues – Variable Costs – Direct Fixed Costs*

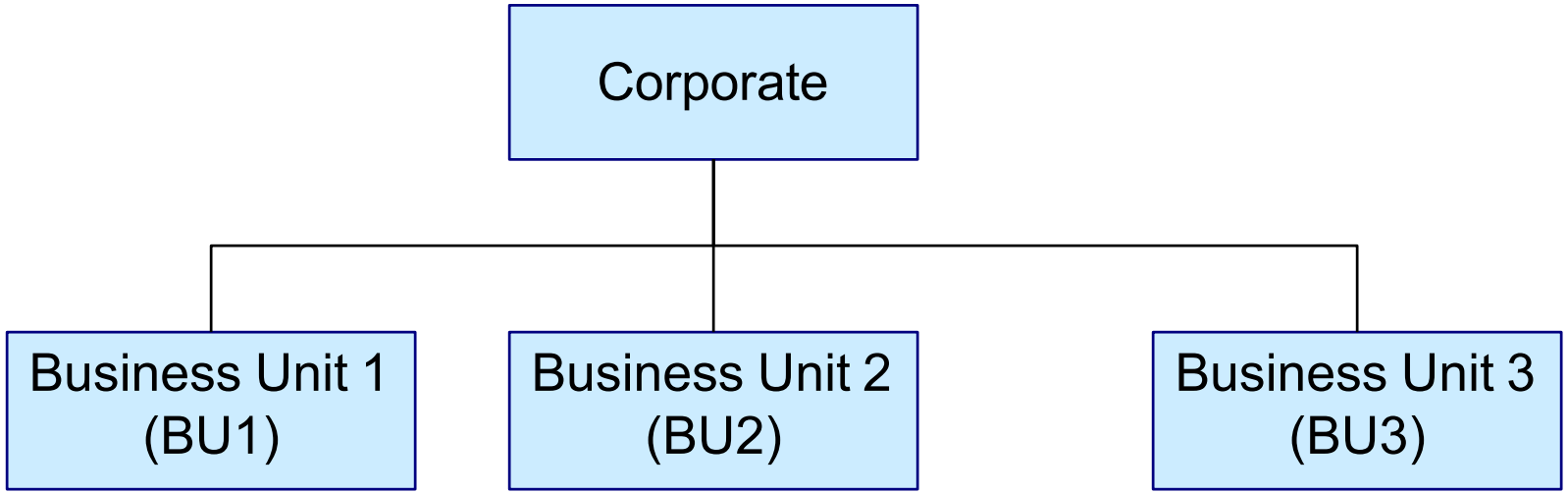
Corporate Costs Allocation (i)



Reporting at the Business Unit level relies mainly on accounting-based indicators to be applied to the Income Statement till the EBIT. To generate it, two relevant issues arise:

- Resources used by BUs but managed at the corporate level (**corporate cost allocation problem**)
- *Transfer prices*

An example to clarify



R&D is managed at the corporate level

Total R&D costs for the period are 190,000 €

The R&D unit has managed the following R&D projects:

- Investigation of new materials for BU1 (45,000 €)
- Search for new production machines for BU2 (35,000 €)
- Validation of a new tracing system for BU3 (20,000 €)
- Exploration of potential advantages due to AI-based solutions (90,000 €)

Traceable vs Not Traceable Corporate Costs

Examples of Corporate Costs:
R&D activities, legal activities, brand marketing campaigns, IT security etc.

- **DIRECT corporate Costs** (i.e., *Traceable*) are those corporate costs that can be specifically and exclusively identified with a particular BUSINESS UNIT:
  - *If the R&D department carried out applied research on behalf of BUSINESS UNIT (A), the incurred costs are DIRECT to BU (A)*
- **INDIRECT Corporate Costs** (i.e., *Not Traceable*) are those costs that cannot be identified specifically and exclusively with a particular BUSINESS UNIT:
  - *If the R&D department carried out basic research on behalf of the whole company, the incurred costs are INDIRECT to the BUs*

Corporate Costs Allocation (ii)

Examples of Corporate Costs:
R&D activities, legal activities, brand marketing campaigns, IT security etc.

There are 3 main strategies:

	PROs	CONs
No allocation	**No costs for running the system**	**Risk of uncontrolled use of resources**
Complete allocation	**Managers know that corporate services are not for free**	**Need of precision** **Risk of not using services even if they are needed**
Partial Allocation	**Specific responsibilities** **Clear decision-making**	**It cannot be applied to all types of corporate costs**

Corporate Costs Allocation (iii)

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bro

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From a theoretical perspective, corporate costs should be allocated to Business Units accordingly to:

- **services delivered**
- **benefits generated**

When this is not straightforward, "default" drivers are used:

- **revenues**
- **full time equivalent (FTE) employees**

No		**f resources**
Complete allocation	**Managers know that corporate services are not for free**	**Need of precision Risk of not using services even if they are needed**
Partial Allocation	**Specific responsibilities Clear decision-making**	**It cannot be applied to all types of corporate costs**

Corporate Costs Allocation (iv)

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Example: costs of the corporate Finance Office

- capacity for internal consulting = 200 h
- overall costs = 50,000 €

Two Business Units:

- BU(A) = use of 100 h of the corporate Finance Office
- BU(B) = use of 60 h of the corporate finance office

Total usage = 160h (80% of the available capacity)

HOW TO ALLOCATE?

N		
Co		**even if they are needed**
Partial Allocation	**Specific responsibilities** **Clear decision-making**	**It cannot be applied to all types of corporate costs**

Corporate Costs Allocation (iv)

Ex
br

Th

Consumption

- Cost per hour = 50,000€ / 160h = 312.5€/h
- Costs to BU(A) = 312.5€/h * 100h = 31,250€
- Costs to BU(B) = 312.5€/h * 60h = 18,750€

Fees

- **Cost per hour = 50,000€ / 200h = 250€/h**
- **Costs to BU(A) = 250€/h * 100h = 25,000€**
- **Costs to BU(B) = 250€/h * 60h = 15,000€**
- **Costs NOT allocated = 10,000€ → corporate costs NOT allocated (partial)**

N		
C		**even if they are needed**
Partial Allocation	**Specific responsibilities** **Clear decision-making**	**It cannot be applied to all types of corporate costs**

An example to clarify (1)

XYZ COMPANY – Income Statement Nov. 2023

	Total Company
Sales (Revenues)	$ 750,000
Less variable expenses	- $ 336,000
Contribution Margin	**$ 414,000**
Less fixed expenses	- $ 378,000
EBIT (Net Operating Income)	**$ 36,000**

Management is disappointed with the company's performance and is wondering what can be done to improve profits.

The Income Statement by Contribution Margin organizes costs in VARIABLE vs FIXED

This 3rd scheme is useful for supporting short-term decision-making

contribution margin per unit
m = SPU – VCU

Contribution Margin (total) = Revenues – Variable Costs

An example to clarify (2)

XYZ CON

SEGMENT MARGIN =
Revenues – Direct Costs
(both variable and fixed)

		SEGMENTS	
		Business Unit A	**Business Unit B**
Sales (Re	0	$ 300,000	$ 450,000
Less variable expenses	36,000	$ 156,000	$ 180,000
Contribution Margin	**$ 0**	$ 144,000	$ 270,000
Less allocated fixed expenses	- $ 228,000	$ 120,000	$ 108,000
Business Unit Segment Margin	**$ 186,000**	**$ 24,000**	**$ 162,000**
Less not allocated Corporate Costs	$ 150,000		
EBIT (Net Operating Income)	**$ 36,000**		

CORPORATE COSTS
that are not allocated
to the segments

An example to clarify (3)

XYZ COMPANY – Income Statement Nov. 2023

	Total Company	Business Unit A	Bus nit B
Sales (Revenues) %	100.0%	100%	100%
Less variable expenses %	- 44.8%	- 52%	- 40%
Contribution Margin %	**55.2%**	**48%**	**60%**
	- 30.4%	- 40%	- 24%
	24.8%	**8%**	**36%**
ROS	**4.8%**		

Segments' performance can be better understood a es

Compared to the BU_B, BU_A has a lower contribution margin ratio

Overall, compared to BU_B, BU_A has a very weak performance

BU_A has high traceable fixed expenses

Accounting-based indicators are not enough…

Hierarchy	Value-based Indicators	Accounting-based Indicators	Value-Drivers
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Responsibility Centres		Revenues Costs/Expenses	Backbone of the reporting system

*** Economic Value Added (EVA) = NOPAT – WACC * Invested Capital*

** Revenues – Direct Costs = Revenues – Variable Costs – Direct Fixed Costs*

Which statement about Corporate Costs is correct?

Corporate Costs can be distinguished into three main groups: direct costs, indirect costs, and period costs.

Corporate Costs can be allocated to Business Units using the following approaches: a market-based approach or a cost-based approach; the cost-based approach can rely on either actual or standard costs.

A partial corporate cost allocation based on proportional allocation drivers allows to fairly allocate costs related to spare capacity among the Business Units

A partial corporate cost allocation based on fees should be preferred in the case of costs related to spare capacity.

Which statement on reporting at the BU level is FALSE:

To isolate the performance of BUs within the company, two specific problems must be addressed: the existence of intercompany exchanges and the presence of resources used by the BUs that are managed at the corporate level

To meet the “specific responsibility” requirement for reporting at the BU level, companies must allocate all corporate costs to the BUs

The existence of intercompany exchanges has fiscal implications when the BUs, belonging to the same group, are autonomous juridical entities located in different countries.

When using non-financial indicators at the BU level, it is convenient to identify indicators that isolate specific responsibilities of each BU

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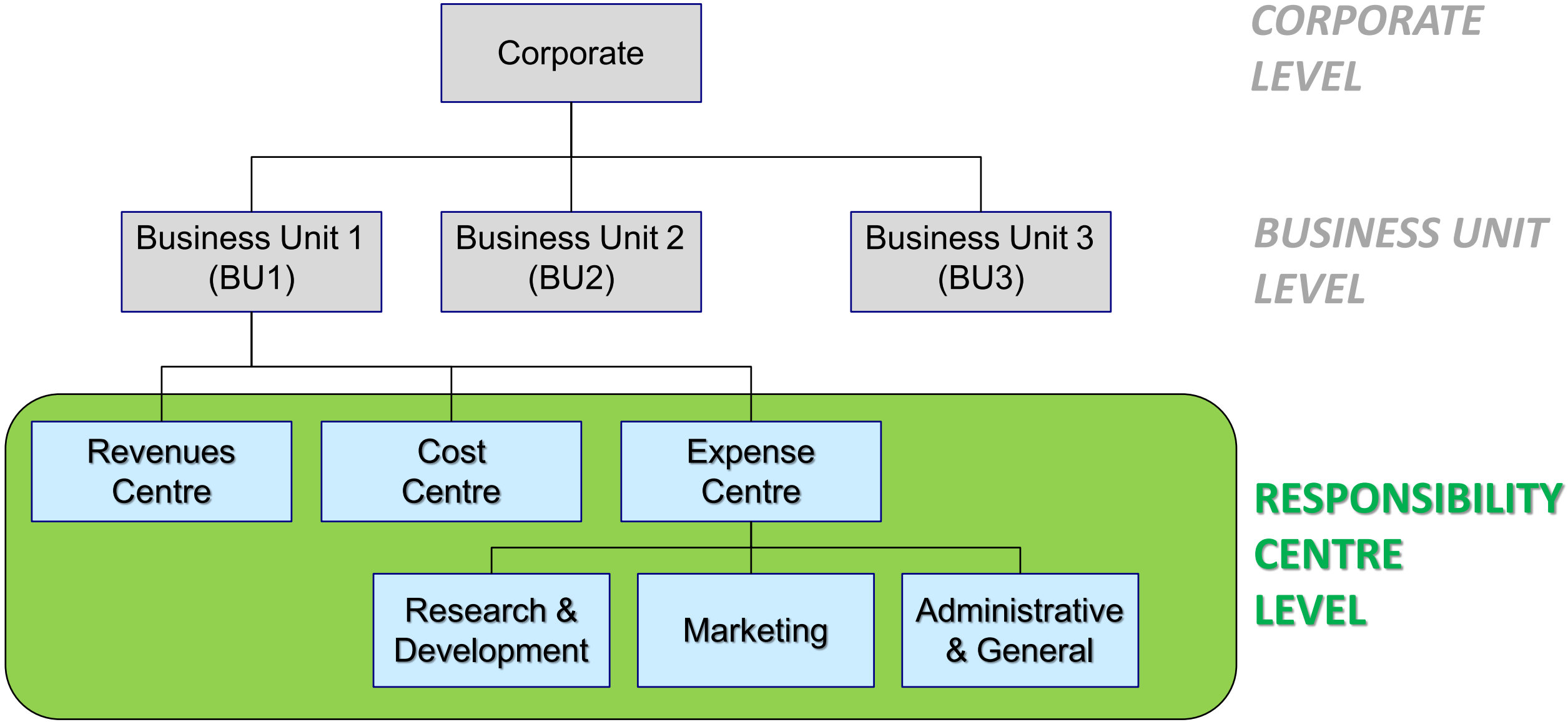
Reporting for Responsibility Centres



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*** Economic Value Added (EVA) = NOPAT – WACC * Invested Capital*

** See next slides*

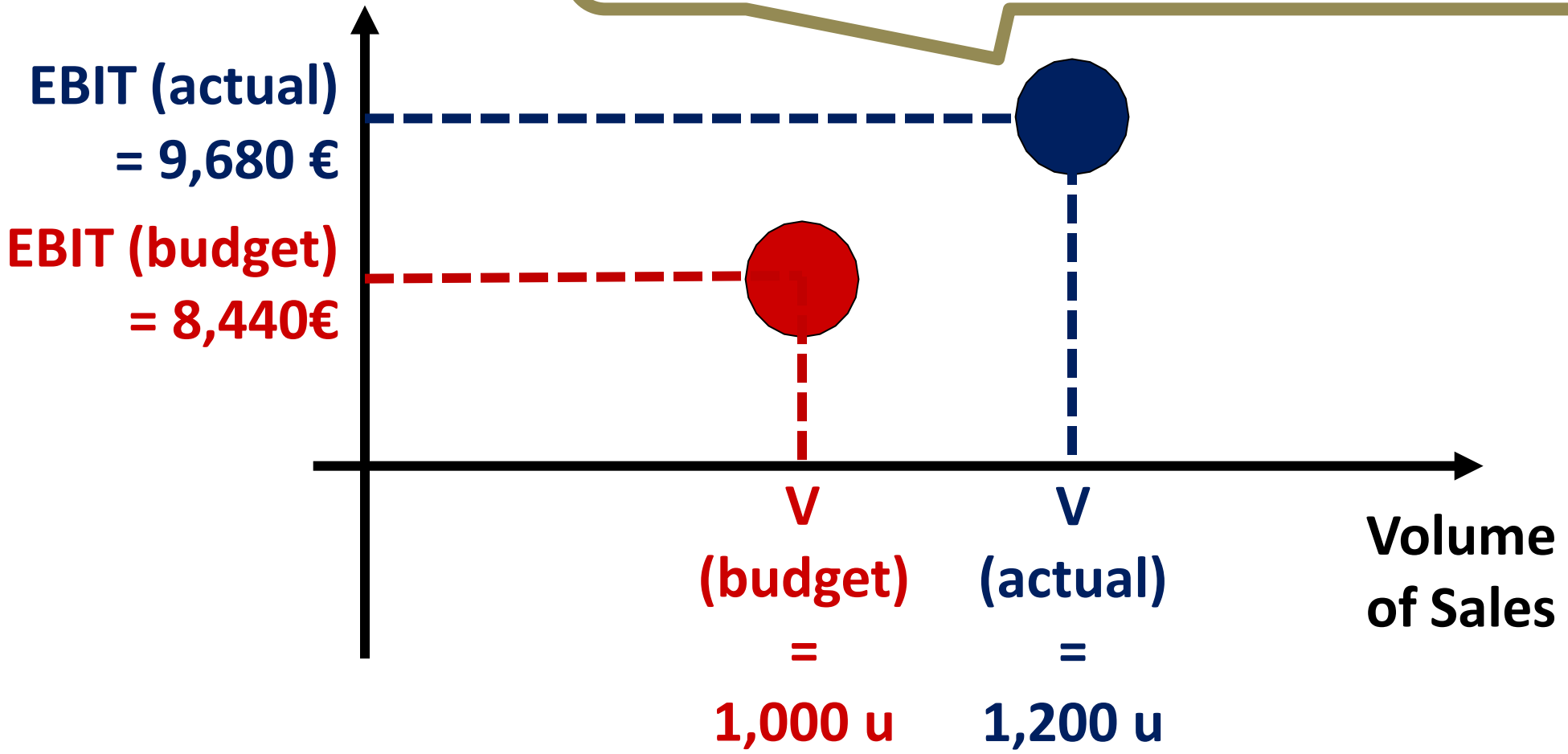
Indicators for Responsibility Centres

Responsibility Centres	Main Goal	Accounting-based Indicators	Value-Drivers
Revenue Centres	MAX Revenues	ΔRevenues ΔPrice ΔVolume	*Revenue drivers* Resource drivers Key Risk Indicators
Cost Centres	MIN Product Costs	ΔCosts for Material ΔCosts for Labour ΔD&A	*Cost drivers* Resource drivers Key Risk Indicators
Expenditure Centres	MIN Period Costs	ΔCosts for Material ΔCosts for Labour ΔD&A	*Cost drivers* Resource drivers Key Risk Indicators

Accounting-based Reporting

1st Loop Learning → Variances = Actuals – Targets

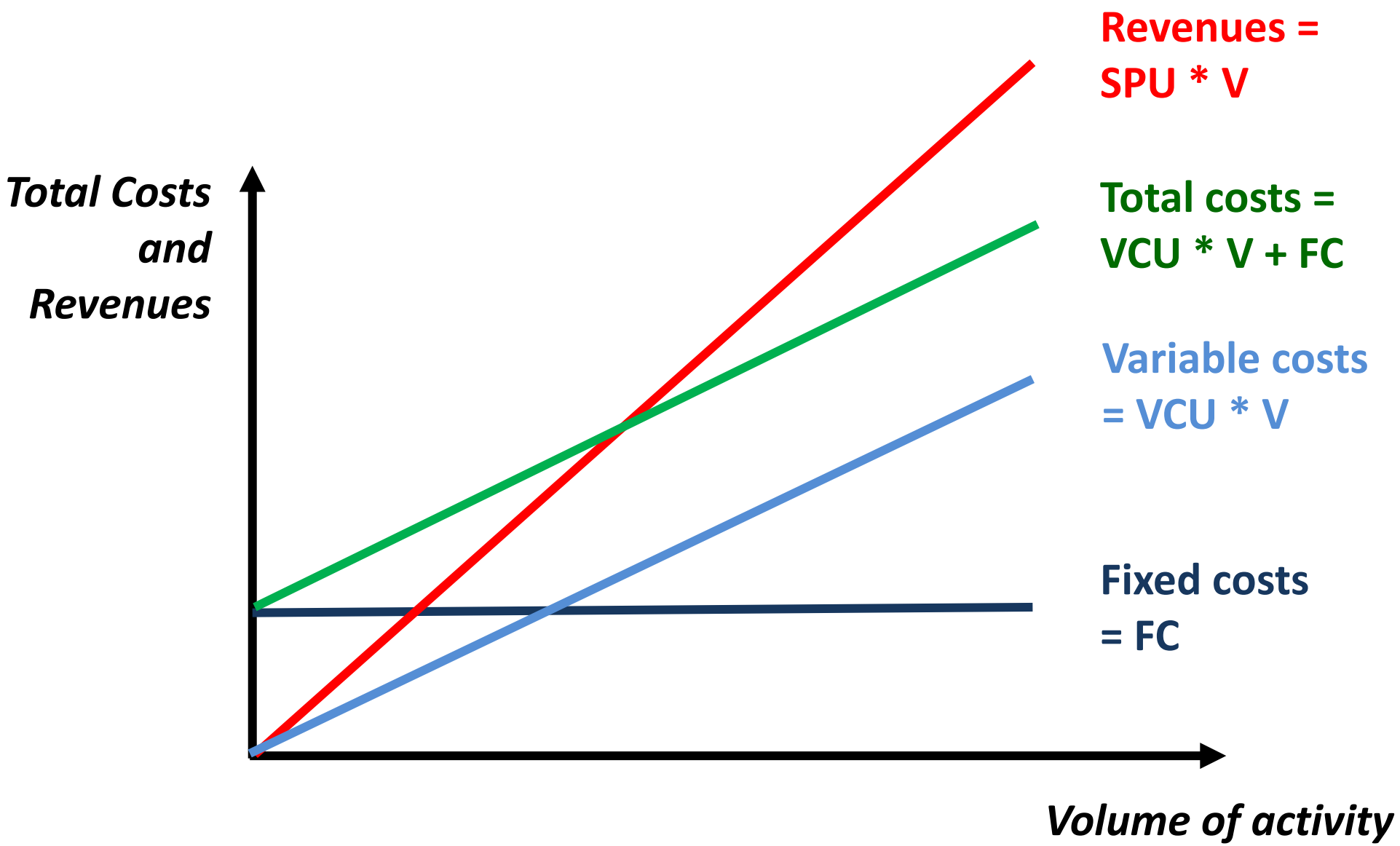
2nd Loop Learning → Test of Hypotheses



Cost Behaviour: Variable vs Fixed Costs

- Knowledge of how costs will vary with different levels of activity/volume is essential for decision-making / reporting
- Costs can be classified in two broad categories:
  - Variable costs: vary in **DIRECT PROPORTION** to the volume of activity. Thus, the total variable costs are linear, and the variable cost per unit is constant (examples: direct materials, direct labour, sales commissions).
  - Fixed costs: remain constant over wide ranges of activity for a specified time period. The total fixed costs are constant for all levels of activity, whereas fixed costs per unit decrease proportionally with the level of activity (examples: depreciation of machines, supervisors' salaries, rent of office space)

Cost-Volume-Profit Analysis Diagram

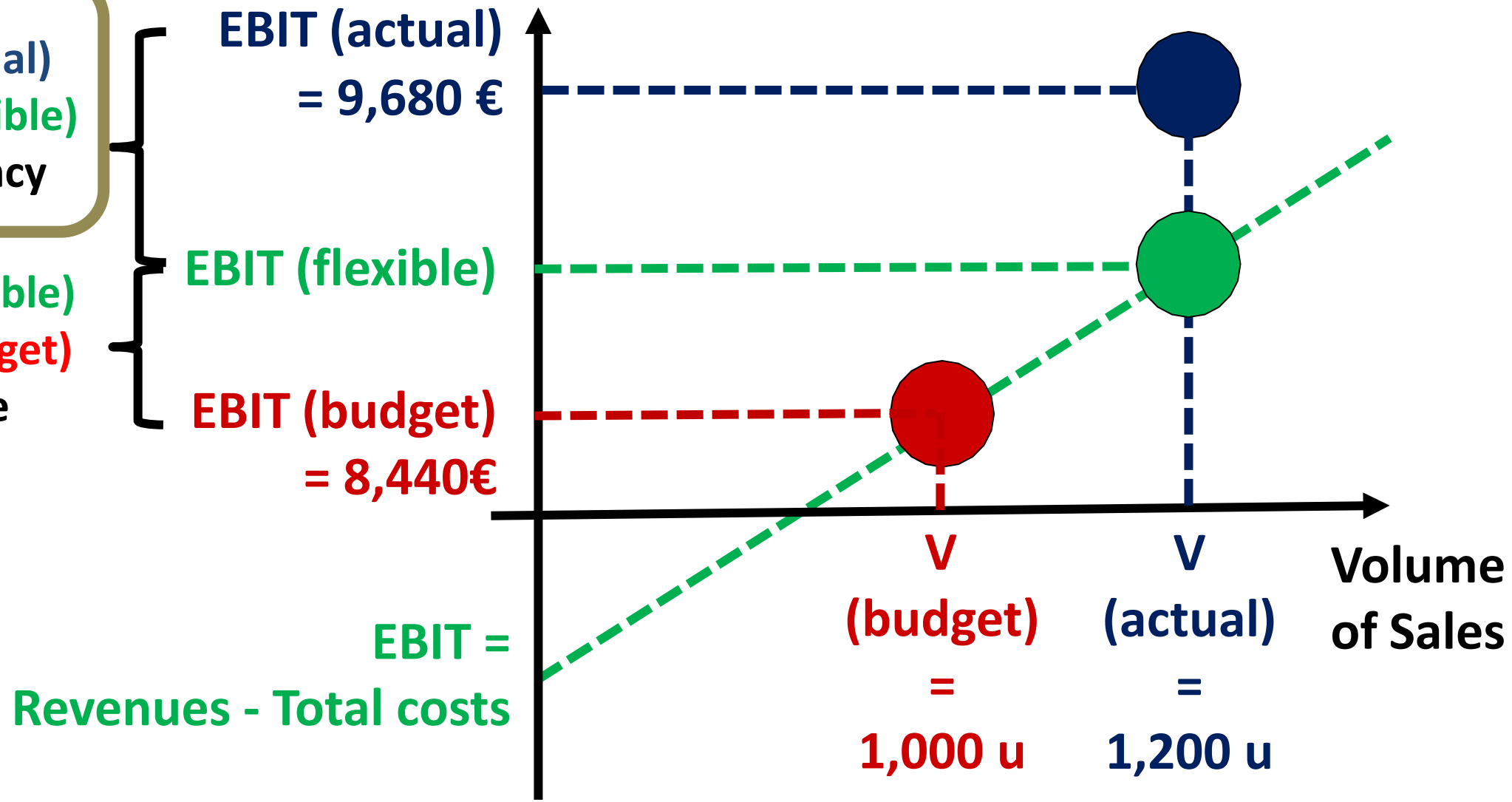


Back to our example

What happened?

EBIT(actual)
– EBIT(flexible)
= Δ efficiency

EBIT(flexible)
– EBIT(budget)
= Δ Volume

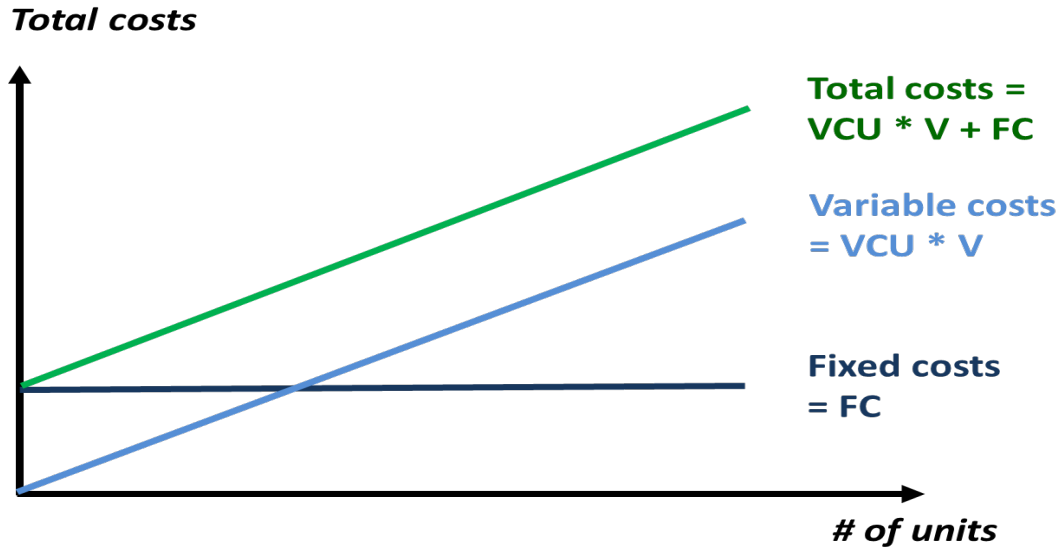


Short case about a Cost Centre

	Budget	*Actual*
Volume	2,000 units	2,100 units
Cost of Materials	120,000 €	125,000 €
Cost of Labour	80,000 €	90,000 €
Direct Materials (kg)	18,750 kg	19,290 kg
Direct Labour (hours)	3,200 h	3,600 h
Plant Overhead (fixed)	150,000 €	140,000 €
~~Period Costs~~	~~110,000 €~~	~~100,000 €~~
TOTAL PRODUCT COSTS	350,000 €	< 355,000 €

Short case about a Cost Centre

	Budget	*Actual*
Volume	**2,000 units**	**2,100 units**
Cost of Materials	**120,000 € → 60 €/u**	**125,000 €**
Cost of Labour	**80,000 € → 40 €/u**	**90,000 €**
Plant Overhead (fixed)	**150,000 €**	**140,000 €**



	BUDGET	FLEXIBLE BUDGET	ACTUAL	IMPACT
Cost of Materials	**120,000 €**		**125,000 €**	
Cost of Labour	**80,000 €**		**90,000 €**	
Plant Overhead (fixed)	**150,000 €**		**140,000 €**	
Total Product Costs	**350,000 €**		**355,000 €**	

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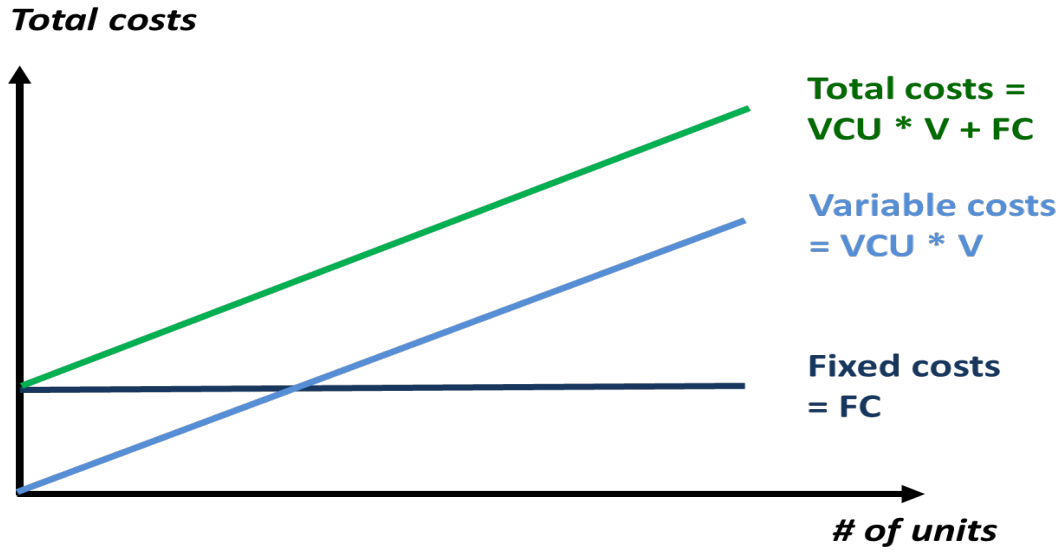

	BUDGET	FLEXIBLE BUDGET	ACTUAL	IMPACT
Cost of Materials	**120,000 €**	**60€/u * 2,100 u = 126,000 €**	**125,000 €**	
Cost of Labour	**80,000 €**	**40€/u * 2,100 u = 84,000 €**	**90,000 €**	
Plant Overhead (fixed)	**150,000 €**	**150,000 €**	**140,000 €**	
Total Product Costs	**350,000 €**	**360,000 €**	**355,000 €**	

Short case about a Cost Centre

The difference between FLEXIBLE BUDGET and BUDGET is due to **ΔVOLUME** that is not responsibility of cost centres

The difference between ACTUAL and FLEXIBLE BUDGET is due to **ΔEFFICIENCY** that is responsibility of cost centres

> 0

< 0

	BUDGET	FLEXIBLE BUDGET	ACTUAL	IMPACT
Cost of Materials	**120,000 €**	**60€/u * 2,100 u = 126,000 €**	**125,000 €**	
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Short case about a Cost Centre

The difference between
ACTUAL and FLEXIBLE BUDGET
is due to **ΔEFFICIENCY**
that is responsibility
of cost centres

> 0 

< 0 

ΔEFFICIENCY
is the result of a variation (actual vs budget) of

> 0 

< 0 

ΔUSE of production factors
(e.g., kg/u ; h/u)
that is responsibility of the cost centre

ΔPRICE (€/kg ; €/h)
that is NOT the responsibility
of the cost centre

Do not forget value drivers !

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** See next slides*