

## Exercise on Phidias Case

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Add to the Phidias Case the following changes:

- From June 2019 onwards, the Italian penetrated market will be equal to 40% of the served market.
- In the 5th year, the revenues per unit on the Italian market will grow by 5% instead of decreasing by 10%.
- On January 1, 2019, Phidias will buy a 3D printer paying 5,000 EUR. The depreciation coefficient is 30%.
- In January 2020, Phidias will hire one more employee.

What are the new values of Net Present Value and Internal Rate of Return of Phidias?

## Exercise on Phidias Case - Solutions

- From June 2019 onwards, the Italian penetrated market will be equal to 40% of the served market.

✓ 1.2 Markets Volumes

Market 1 - Penetrated Market			
Period description	[by month]	(to month)	% of the Served
January-March of the first year	1/2018	4/2018	0,0%
April 2018 - May 2019	4/2018	6/2019	30,0%
From June 2019 onwards	6/2019		40,0%

- In the 5th year, the revenues per unit on the Italian market will grow by 5% instead of decreasing by 10%.

✓ 1.3 Markets Revenues

Revenues per Unit				
Period description	Growth Rate	[by month]	(to month)	Revenues per Unit
1st year		1/2018	1/2019	150,00
2nd year	-10,0%	1/2019	1/2020	135,00
3rd year	-10,0%	1/2020	1/2021	121,50
4th year	-10,0%	1/2021	1/2022	109,35
5th year	5,0%	1/2022		114,82

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- On January 1, 2019, Phidias will buy a 3D printer paying 5,000 EUR. The depreciation coefficient is 30%.

### Investments

Description	Date	Depreciation coefficient *	Amount	Currency
3D printer	01/01/2018	30%	15.000,00	EUR
3D printer	01/01/2018	30%	26.000,00	EUR
3D printer	01/01/2018	30%	35.000,00	EUR
3D printer	01/01/2019	30%	5.000,00	EUR

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- In January 2020, Phidias will hire one more employee.

✓ 1.7 Fixed Costs

### Fixed Periodic Costs

Description	Frequency	Starting month	Starting date	Amount	Currency
Laboratory rent	3	1	01/01/2018	1.500,00	EUR
Laboratory other fixed expenses	1	1	01/01/2018	500,00	EUR
Labor costs - first 2 employees	1	1	01/01/2018	4.900,00	EUR
Labor costs - 2 additional employees	1	1	01/01/2019	4.900,00	EUR
Labor costs - 1 additional employee	1	1	01/01/2020	2.450,00	EUR

### Fixed Costs Driver 1

Employees			
Period description	[by month]	(to month)	Value
1st year	1/2018	1/2019	2
2nd year	1/2019	1/2020	4
From January 2020 onwards	1/2020		5

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The new values of the Net Present Value and Internal Rate of Return of Phidias are the following

✓ 2.2 Financials & Indicators

### Shareholders' perspective

Shareholders' Net Cash Flows: capital contributions, dividends, and terminal value

NET PRESENT VALUE (NPV)	97.056 EUR	<a href="#">See details</a>
INTERNAL RATE OF RETURN (IRR)	111%	