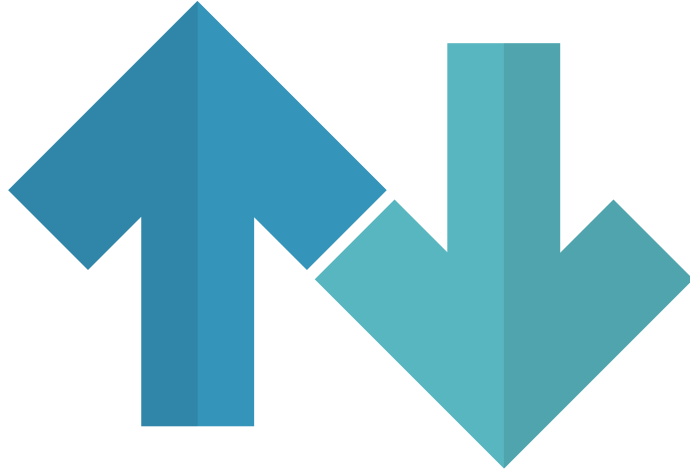
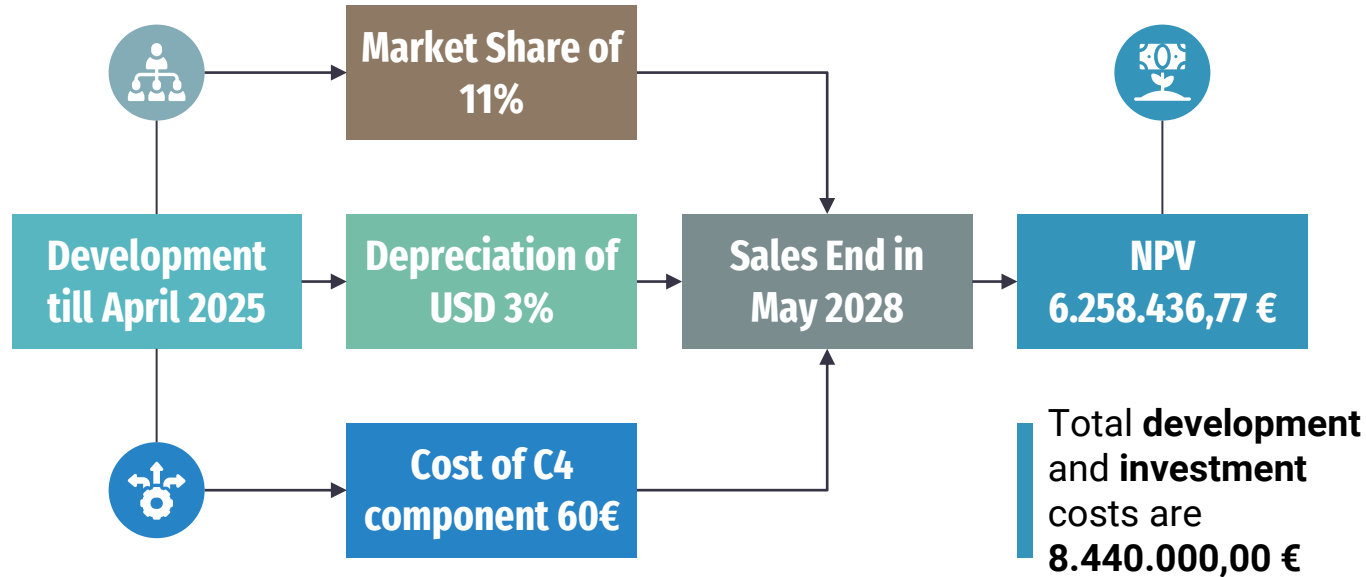




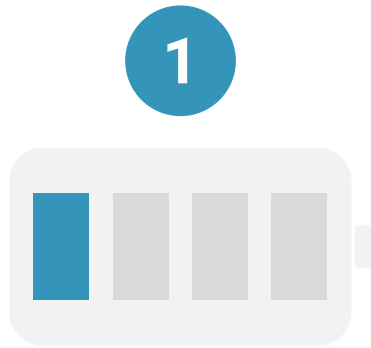
Trade-offs in product development

Team 6

Deterministic Scenario

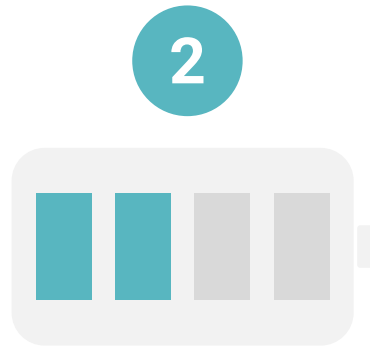


Alternative Scenarios



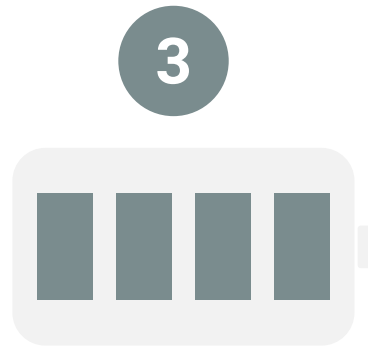
WORST

Market Share: 8%
Cost of C4 component: 90 €
USD depreciation: 1%
NPV: -701.637,62 €



NORMAL

Market Share: 11%
Cost of C4 component: 60 €
USD depreciation: 3%
NPV: 6.258.436,77 €



BEST

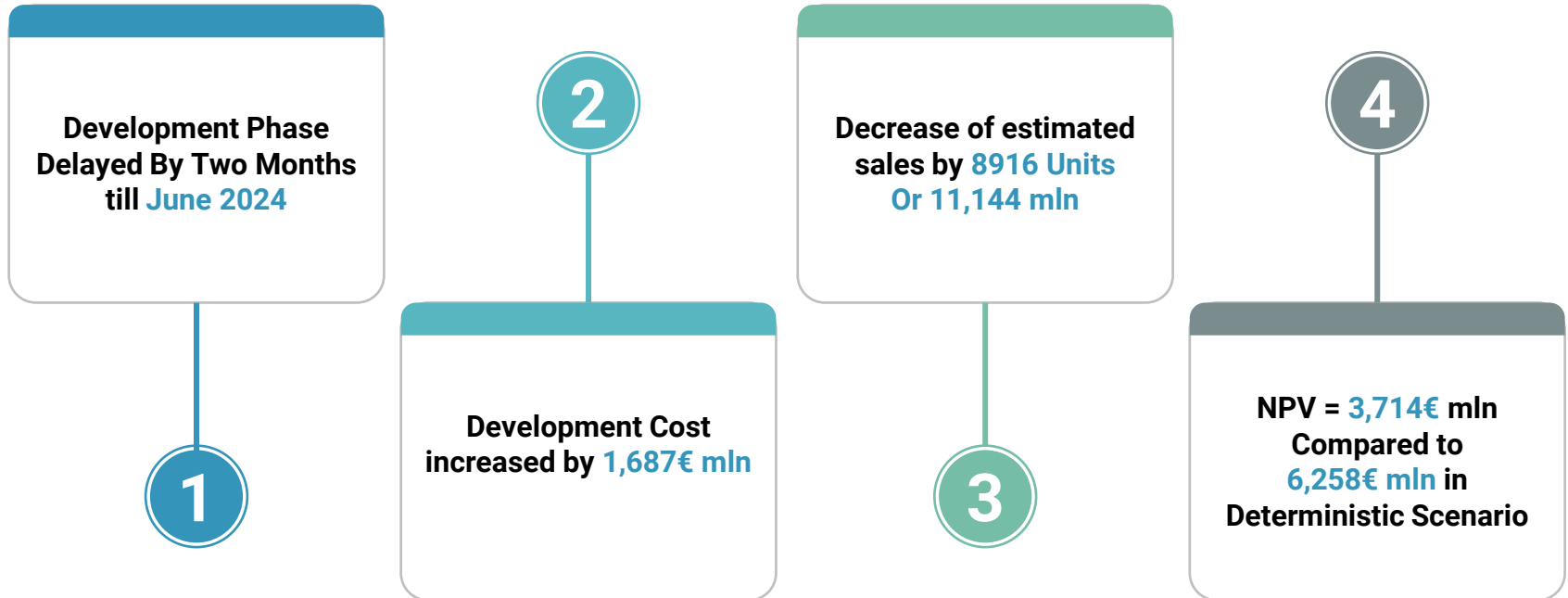
Market Share: 15%
Cost of C4 component: 35 €
USD depreciation: 5%
NPV: 16.455.348,32 €

Insight:

company's profitability and financial performance improve significantly as market share increases and component costs decrease

Delay in Development Phase

Condition: overlapping activities 4-6 took not 1.5 times but 2 of the duration of the longest component activity



Monte Carlo Simulation Results



1

Mean of NPV's = 6.678.722,83 €

2

Standard deviation = 4.377.826,96 €

3

Median of NPV's = 6.826.743,77 €

4

Max of NPV's = 18.749.496,63 €

5

Min of NPV's = - 8.439.032,63 €

Insights:

The simulation got 928 positive-NPV results out of 1000, with a 92,8% probability of making a profit. This is a pretty high probability for such an uncertain project. The high uncertainty is represented by the standard deviation that is a value relatively close to the mean value.

Simulation's Second Iteration Using Motor8's WACC



1

Mean of NPV's = 8.919.323,72 €

2

Standard deviation = 5.436.158,68 €

3

Median of NPV's = 9.133.837,37 €

4

Max of NPV's = 24.081.176,41 €

5

Min of NPV's = - 9.000.524,99 €

Insights:

The fact that the NPV reduces the uncertainty of the process by considering all possible combinations of variables randomly may allow us to reduce the discount rate by a certain amount. We don't suggest to cut it to 8% (as MOTOR8's one) because the project is still new for the company

Project Portfolio Analysis: methodology

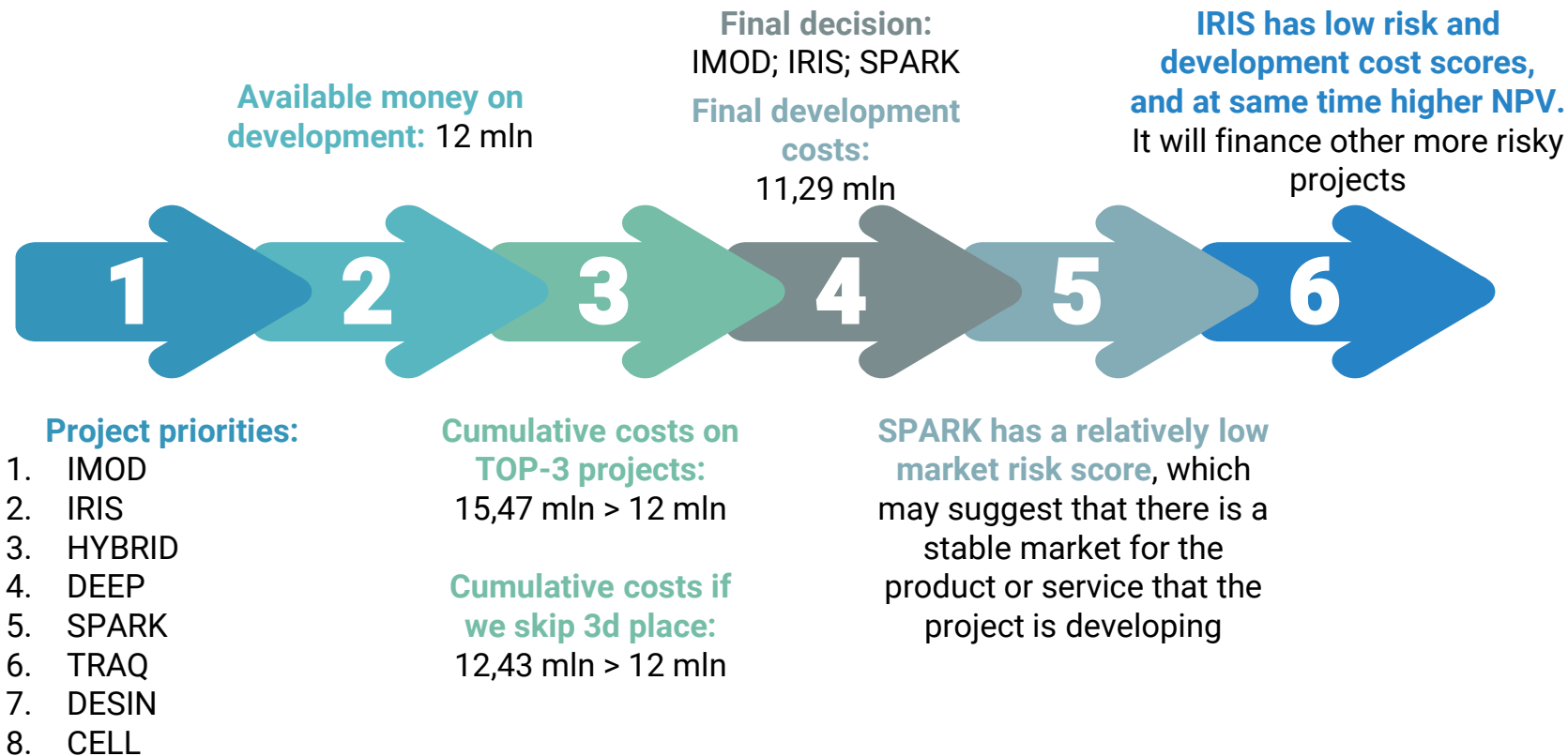
Weight	4	3	2	5	4	3	
	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Criteria 5	Criteria 6	
Project	Strategic Alignment	Technology Risk	Market Risk	NPV	Payback Time	DC	Final score
IMOD	5	5	2	5	2	1	75
SPARK	1	2	1	1	5	5	52
IRIS	2	5	5	4	1	5	72
DESIN	2	2	1	1	3	5	48
TASA	2	2	1	2	3	1	41
DEEP	5	3	3	2	2	4	65
HYBRID	5	1	5	4	2	2	67
TRAQ	5	1	1	2	2	2	49
CELL	1	1	5	4	1	2	47

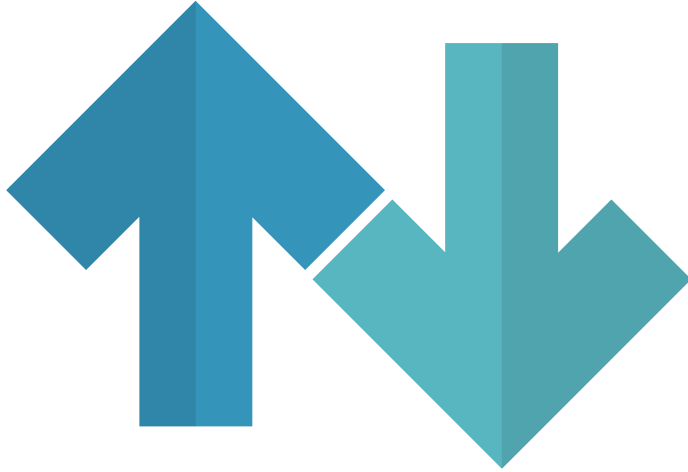
1 Simple multi-criteria method

2 Weights to each factor based on importance

3 Projects selection on priority + cost balance

Project Portfolio Analysis: results





Trade-offs in product development

Case 2

Team 6