

HALCYON METALWORKS KFT.

CAPITAL INVESTMENT APPRAISAL

5-axis machining centre, programme P-4471 | ten year incremental cash flow | EUR '000

Illustrative portfolio sample - fictional company and fictional data

Prepared by
For

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July capital committee

Appraisal date
Decision requested

24 July 2026
Conditional approval

THE QUESTION, IN ONE PARAGRAPH

Halcyon Metalworks has a signed quotation for a five-axis machining centre at EUR 1,550k, and a total project cost of EUR 1,830k once installation, tooling, training and system integration are included. Two things are meant to pay for it: bringing complex machining back in from subcontractors, and a transmission housing platform that Nordwerk has put out to quotation but has not yet awarded. The committee asked whether the investment stands up, at what point it stops standing up, and what would have to be true for a yes. This pack answers all three, and it says no as scoped.

CONTENTS			
Tab		What it does	
Summary		The recommendation, six appraisal metrics, the three conditions, the cash profile, scenario results and risks.	
Appraisal		The ten year incremental cash flow, discounting, and the appraisal metrics: NPV, IRR, MIRR, payback and profitability index.	
Benefits Build		Every benefit built from volumes, cycle times, hours and rates, plus the capacity check that both streams must pass.	
Costs & Capex		Capital cost and payment milestones, incremental operating cost, depreciation and residual value.	
Scenarios		Twelve live runs, each a full re-computation, plus three break even calculations.	
WACC		The discount rate, built from a euro risk free rate and a country risk premium, with the reason no project premium is added.	
Assumptions		Every input with its source, the control panel, and the benefits deliberately excluded from the case.	
Checks		Sixteen integrity checks. The paper does not go to the committee until all sixteen read OK.	

HOW TO DRIVE IT

Change the discount convention	One cell on the Assumptions tab switches between end of year and mid year discounting.
Test a benefit	Change a volume, a cycle time or a rate on the Benefits Build tab. Nothing is entered as a lump sum.
Run a scenario	The twelve runs on the Scenarios tab are live. Change a parameter on any row and that run re-computes.
Check before issuing	Open the Checks tab. Sixteen OKs, or find out why not.

CONVENTIONS

Blue figures	Inputs. The only cells intended to be typed over.
Green figures	Links to another tab.
Black figures	Calculated on the tab you are looking at.
Signs	Cash in positive, cash out negative, on the cash flow section of the Appraisal tab.
Financing	Excluded. The project is discounted at the WACC, so interest and repayments must not also appear in the cash flows.

DISCLAIMER. A work sample. Halcyon Metalworks Kft. is a fictional company; the machine, the quotation, the platform award, the part families, the rates and the capital structure are invented to demonstrate structure, controls and commercial reasoning. No client data of any kind appears in this workbook. Prepared by Tarlan Charkasov, ACCA.

HALCYON METALWORKS KFT. - CAPITAL INVESTMENT APPRAISAL

5-axis machining centre, programme P-4471 | EUR '000 | appraisal date 24-Jul-26 | discounted at 10.7% WACC, group hurdle 12.0%

NET PRESENT VALUE AT WACC

(70)

Profitability index 0.91x on capital of 1,830k

INTERNAL RATE OF RETURN

9.8%

Against a WACC of 10.7% and a hurdle of 12.0%

NPV AT THE GROUP HURDLE RATE

(163)

The rate the group applies to discretionary capacity

PAYBACK, UNDISCOUNTED

6.3 yrs

Discounted payback is not achieved within the appraisal period

SHARE OF THE BENEFIT FROM ONE PLATFORM

73.5%

Not yet nominated. Without it the NPV is -1,546k

MANAGEMENT CASE NPV

8

Platform awarded and the 5% capital saving delivered

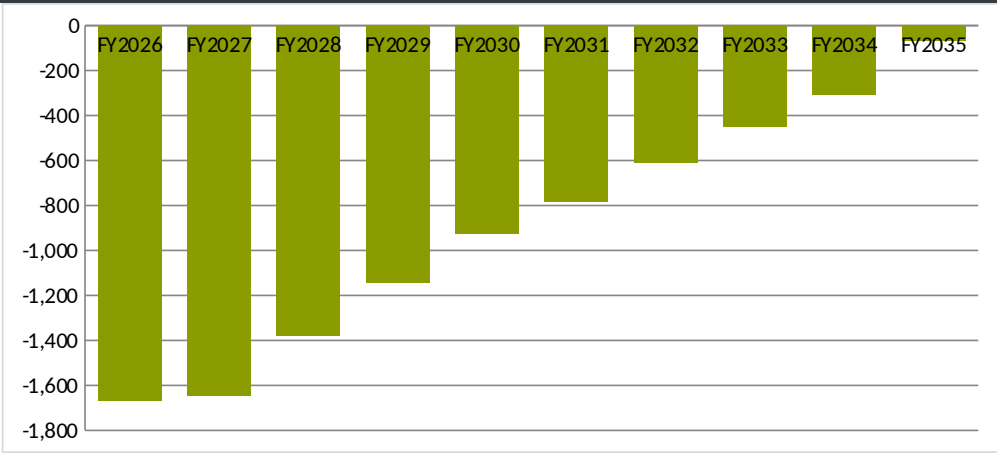
RECOMMENDATION

Do not approve as scoped. The base case returns 9.8% against a 10.7% cost of capital and a 12.0% hurdle, with a net present value of -70k. The three conditions below take it to 8k, marginally positive but still short of the hurdle. On these numbers this is a decision about staving on the platform, not a financial one.

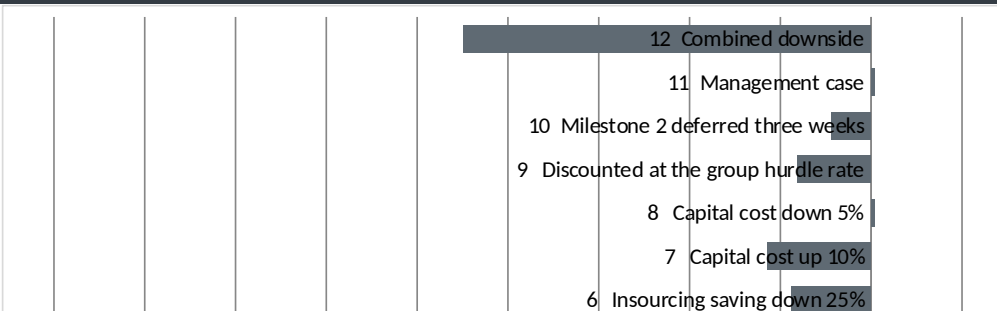
THE THREE CONDITIONS

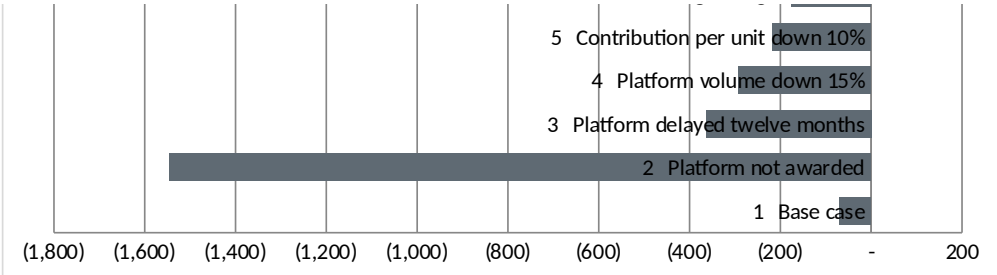
1 A signed nomination from Nordwerk before m	The platform is 74% of the gross benefit. Without it the net present value is -1,546k and the internal rate of return is n/a. Milestone 2 is 775k and is the last point at which the decision is still reversible.
2 The 5% capital reduction closed out in the fina	Procurement believe it is available. It is worth 79k of net present value, which is the difference between a project that clears its cost of capital and one that does not.
3 The second and third shifts committed by ope	The case needs 87% utilisation of the machine. Both benefit streams are hours on one spindle: if the shift pattern is not committed, the benefit is not available and neither stream can be delivered in full.

CUMULATIVE DISCOUNTED CASH FLOW



NET PRESENT VALUE BY SCENARIO





WHAT THE NUMBERS SAY

- 1. The case is conditional, not marginal. As scoped the net present value is -70k and the internal rate of return 9.8%, against a cost of capital of 10.7% and a profitability index of 0.91x. The project as scoped does not return its cost of capital, and no reasonable improvement to the arithmetic changes that: the question is whether the three conditions can be met.
- 2. 74% of the gross benefit is one platform that has not been nominated. The insourcing benefit, which is contracted work we already do, is worth only 94k a year and cannot carry the machine on its own: run 2 puts the net present value at -1,546k.
- 3. Timing matters more than price. A twelve month delay to the nomination costs 293k of net present value, more than a 10% capital overrun (157k) and more than a 25% reduction in the insourcing saving (105k). Whatever else the committee negotiates, the nomination date is the thing to hold.
- 4. The liquidity action from the 13-week cash flow forecast is cheap. Deferring milestone 2 by three weeks lifts minimum liquidity by 775k in the trough week and costs 18k of net present value. That is the trade to take.
- 5. Break even. The platform has to be worth at least 1,068k of revenue a year, against an RFQ quantity worth 1,019k, for the project to return its cost of capital. That is 105% of the quoted volume, which is the number to put in front of the sales director.

RISKS

Single customer concentration	The platform that carries the case is the customer that already takes 21% of revenue. Approving on this basis increases dependence on one buyer's call-offs.	High
Subcontractor response	Insourcing 2,000 machine hours will provoke a rate response. Run 6 prices a 25% reduction in the saving.	Medium
Utilisation	The case needs both streams on one spindle. Any breakdown, qualification delay or shift shortfall takes benefit out, not cost.	Medium
Residual value	Set equal to written down value, so no gain is assumed. A five-axis machine of this class is liquid, but the assumption is not a source of value in this case.	Low

Illustrative sample built on fictional data for portfolio purposes. Halcyon Metalworks Kft. is not a real company and no client information is used anywhere in this file.

INCREMENTAL CASH FLOW AND APPRAISAL

Halcyon Metalworks Kft. | 5-axis machining centre, programme P-4471 | EUR '000 | incremental cash flows only, financing excluded, discounted at the WACC on the WACC tab

Financial year	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035	Total
Year index	0	1	2	3	4	5	6	7	8	9	
Discount period t	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	

BENEFIT											
New platform revenue	-	510	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	8,663
New platform contribution	-	166	331	331	331	331	331	331	331	331	2,815
Subcontract insourcing, net saving	-	47	94	94	94	94	94	94	94	94	801
Scrap and rework reduction	-	13	25	25	25	25	25	25	25	25	213
Incremental operating cost	-	(28)	(94)	(94)	(94)	(94)	(94)	(94)	(94)	(94)	(779)
Net EBITDA benefit	-	197	357	357	357	357	357	357	357	357	3,050
TAX											
Depreciation, non-cash	-	(183)	(183)	(183)	(183)	(183)	(183)	(183)	(183)	(183)	(1,644)
Incremental taxable profit	-	15	174	174	174	174	174	174	174	174	1,406
Corporate income tax	-	(1)	(16)	(16)	(16)	(16)	(16)	(16)	(16)	(16)	(127)
FREE CASH FLOW											
Net EBITDA benefit	-	197	357	357	357	357	357	357	357	357	3,050
Corporate income tax	-	(1)	(16)	(16)	(16)	(16)	(16)	(16)	(16)	(16)	(127)
Capital expenditure	(1,755)	(75)	-	-	-	-	-	-	-	-	(1,830)
Mid-life overhaul	-	-	-	-	-	(95)	-	-	-	-	(95)
Residual value	-	-	-	-	-	-	-	-	-	186	186
Working capital	-	(95)	-	-	-	-	-	-	-	95	-
Free cash flow	(1,755)	26	341	341	341	246	341	341	341	622	1,185
DISCOUNTING											
Discount factor	0.950	0.859	0.776	0.701	0.633	0.572	0.516	0.467	0.421	0.381	
Present value	(1,668)	22	264	239	216	141	176	159	144	237	(70)
Cumulative present value	(1,668)	(1,646)	(1,381)	(1,142)	(927)	(786)	(610)	(451)	(307)	(70)	(70)
Cumulative cash flow, undiscounted	(1,755)	(1,729)	(1,388)	(1,047)	(706)	(460)	(119)	222	563	1,185	1,185

APPRAISAL		
Net present value at the WACC	(70)	Sum of the present value row. The single number the committee is being asked to accept or reject.
Net present value at the group hurdle rate	(163)	The same cash flows discounted at the hurdle rate.
Internal rate of return	9.8%	One sign change in the cash flows, so the internal rate of return is unique.
Modified internal rate of return	10.2%	Finance and reinvestment both at the WACC, which removes the reinvestment assumption built into the IRR.
Payback, undiscounted	6.3 yrs	Years from the first outflow, interpolated within the year of recovery.
Payback, discounted	beyond the period	The same test after charging the cost of capital.
Profitability index	0.91 x	Net present value per euro of capital. Below 1.00 means the project does not return its cost.
Benefit concentration: platform share of gross benefit	73.5%	How much of the case rests on one thing. This is the number that decides how the recommendation is written.

Payback is measured from FY2026, the year of the first capital payment.

BENEFITS BUILD

Halcyon Metalworks Kft. | every benefit is built from volumes, hours and rates. Nothing on this tab is a single entered number.

1 INSOURCING OF COMPLEX MACHINING CURRENTLY PLACED WITH SUBCONTRACTORS									
	Part family	Annual volume	Cycle time	Machine hours	Subcontract rate	Subcontract spend	Internal cost	Net saving	Basis
1	HM-2140 suspension bracket	18,000	0.038 h	684 h	76.00	52.0	28.0	24.0	Galvanik Nyugat, 2026 price list, free issue material.
2	HM-2210 pump housing	10,000	0.062 h	620 h	82.00	50.8	25.4	25.4	Two subcontractors, average of the 2026 rates.
3	HM-3080 hydraulic manifold	5,200	0.115 h	598 h	88.00	52.6	24.5	28.1	Single source. The five-axis content is the reason it is outside.
4	HM-3120 mounting flange	18,000	0.031 h	558 h	71.00	39.6	22.9	16.7	Highest volume, lowest complexity, lowest rate.
Insourcing, steady state		51,200		2,460		195.0	100.8	94.2	The saving is the subcontractor's margin and handling, not the whole of the subcontract spend. The material is free issued today and stays with us either way.

2 NEW PLATFORM AWARD, NORDWERK TRANSMISSION HOUSINGS (NOT YET NOMINATED)									
	Line	Per unit EUR	Annual volume	Annual EUR '000					Basis
1	Selling price	39.20	26,000	1,019.2					RFQ 2026-118, price valid to 31-Dec-2028, then 1.5% annual give back.
2	Material and purchased parts	-21.10	26,000	(548.6)					Aluminium billet at the current framework price plus purchased inserts.
3	Machining conversion	-2.46	26,000	(64.0)					Machine hours at the internal conversion rate. Calculated, not quoted.
4	Other variable cost	-2.90	26,000	(75.4)					Packaging, freight to Wolfsburg, and warranty provision at 0.4%.
Contribution		12.74		331.2					Contribution, not gross margin: no fixed overhead is absorbed into it, because none of it changes.
Annual volume			26,000	pieces per year, RFQ quantity					
Cycle time per piece			0.060 h	1,560 h	machine hours a year on the new platform				

3 SCRAP AND REWORK REDUCTION FROM SINGLE SETUP MACHINING									
	Driver	Value		Annual EUR '000					Basis
	Revenue on affected part families	4,180							The four families listed in section 1 plus the new platform.
	Scrap and rework, current	2.1%							12-month actual on those families, from the quality system.
	Scrap and rework, achievable	1.5%							Three re-fixturing operations removed. The target is the plant's own figure for parts already machined in one setup.
Scrap reduction benefit				25.1	Only the material and conversion content of the scrap is claimed. No credit is taken for the capacity the scrap consumed.				

4 CAPACITY CHECK									
	Machine hours available	4,600 h							
									Assumptions tab.

Hours required, insourcing	2,460 h
Hours required, new platform	1,560 h
Utilisation of available hours	87.4%

Section 1.
Section 2.
Both benefit streams have to fit on one machine. If they do not, the case is arithmetic rather than commercial, and it fails here rather than at the end.

CAPITAL COST, MILESTONES AND INCREMENTAL OPERATING COST

Halcyon Metalworks Kft. | EUR '000

1 CAPITAL COST AND PAYMENT MILESTONES

	Item	Amount	Payment date	FY	% of contract	In the 13-week forecast?	Basis
1	Machine, milestone 1 - order confirmation	310	21-Aug-26	2,026	20%	yes	Paid on order confirmation. Appears in week 4 of the 13-week cash flow forecast.
2	Machine, milestone 2 - delivery and acceptance	775	09-Oct-26	2,026	50%	yes	The single largest controllable outflow in the 13-week window, and the driver of the week 11 liquidity trough.
3	Machine, milestone 3 - FAT sign off	465	20-Nov-26	2,026	30%	no	Falls outside the 13-week window.
4	Installation and commissioning	85	04-Dec-26	2,026		no	Foundation, power and extraction.
5	Tooling, fixtures and probing	120	18-Dec-26	2,026		no	First set of tooling and workholding.
6	Operator training	35	15-Jan-27	2,027		no	Four operators at the vendor academy.
7	MES and quality integration	40	29-Jan-27	2,027		no	Machine data capture and SPC feeds.
Total capital cost		1,830					Agrees to the capital cost block on the Assumptions tab.
of which falls in FY2026		1,755	and in FY2027	75			

2 INCREMENTAL OPERATING COST

Item	Driver	Rate	Annual EUR '000			Basis
Maintenance contract	Full service, from year two		38.0			Year one is under warranty. The model charges it from FY2028, which is the first full year off warranty.
Energy, net of the machines it replaces	Handle load and auxiliaries		12.0			Higher installed power, fewer setups. Net of the three older machines it displaces.
Consumables and replacement tooling	Per machine hour	8.40	33.8			Higher specification inserts for five-axis work, at the hours in the capacity check.
Insurance and property tax	On capitalised value	0.55%	10.1			Broker quotation on the insured value of the asset.
Total incremental operating cost			93.9			

3 DEPRECIATION AND RESIDUAL VALUE

Depreciable amount	1,644.0		Capital cost less residual value.
Depreciation period	9 yrs		Years of operation, FY2027 to FY2035.
Annual depreciation	182.7		Straight line. Tax depreciation is assumed equal to book depreciation; no accelerated allowance is claimed.
Written down value at FY2035	186.0		Equals the residual value by construction, so no disposal gain or loss arises.

SCENARIOS, SENSITIVITY AND BREAK EVEN

Twelve live runs. Each one re-computes ten years of cash flow from its own parameters and discounts them: none of these numbers is an approximation of the base case.

RUNS AND THEIR PARAMETERS									
Run	Platform revenue	Contribution per unit	Insourcing saving	Capital cost	Discount rate	Benefit delay	Net present value	IRR	What it tests
1 Base case	100.0%	100.0%	100.0%	100.0%	10.70%	0.000 yrs	(70)	9.8%	As built on the Appraisal tab.
2 Platform not awarded	0.0%	100.0%	100.0%	100.0%	10.70%	0.000 yrs	(1,546)	n/a	Nordwerk nominates another supplier. The insourcing benefit stands on its own.
3 Platform delayed twelve months	100.0%	100.0%	100.0%	100.0%	10.70%	1.000 yrs	(364)	6.3%	Nomination slips a year. Tests how much of the case is timing.
4 Platform volume down 15%	85.0%	100.0%	100.0%	100.0%	10.70%	0.000 yrs	(292)	6.8%	Call-offs below the RFQ quantity.
5 Contribution per unit down 10%	100.0%	90.0%	100.0%	100.0%	10.70%	0.000 yrs	(218)	7.8%	Price give back, or material inflation not passed through.
6 Insourcing saving down 25%	100.0%	100.0%	75.0%	100.0%	10.70%	0.000 yrs	(175)	8.4%	Subcontractors cut their rates to keep the work, which is what they do.
7 Capital cost up 10%	100.0%	100.0%	100.0%	110.0%	10.70%	0.000 yrs	(228)	8.0%	Overrun on installation and tooling.
8 Capital cost down 5%	100.0%	100.0%	100.0%	95.0%	10.70%	0.000 yrs	8	10.8%	Achievable in the final negotiation, per procurement.
9 Discounted at the group hurdle rate	100.0%	100.0%	100.0%	100.0%	12.00%	0.000 yrs	(163)	9.8%	The rate the group applies to discretionary capacity.
10 Milestone 2 deferred three weeks	100.0%	100.0%	100.0%	100.0%	10.70%	0.058 yrs	(88)	9.6%	The liquidity action recommended in the 13-week cash flow forecast, priced.
11 Management case	100.0%	100.0%	100.0%	95.0%	10.70%	0.000 yrs	8	10.8%	Platform awarded at the RFQ quantity and the 5% capital saving delivered.
12 Combined downside	85.0%	90.0%	75.0%	110.0%	10.70%	1.000 yrs	(897)	-0.1%	Runs 3 to 7 together. Not a forecast, a stress test.

ENGINE WORKING - EACH BLOCK IS A FULL TEN-YEAR RE-RUN

Every block below rebuilds the benefit from the run's own parameters, applies the delay, recomputes tax on the revised depreciation, rebuilds the investment flows at the run's capital cost and discounts at the run's rate. Run 1 must reproduce the Appraisal tab exactly; the Checks tab proves it.

1 BASE CASE									
FY	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034
Platform contribution	-	166	331	331	331	331	331	331	331
Other net benefit	-	32	25	25	25	25	25	25	25
Tax	-	(1)	(16)	(16)	(16)	(16)	(16)	(16)	(16)
Investment flows	(1,755)	(170)	-	-	-	(95)	-	-	-
Free cash flow	(1,755)	26	341	341	341	246	341	341	341
Discount factor	0.950	0.859	0.776	0.701	0.633	0.572	0.516	0.467	0.421
Present value	(1,668)	22	264	239	216	141	176	159	144

2 PLATFORM NOT AWARDED									
FY	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034
Platform contribution	-	-	-	-	-	-	-	-	-
Other net benefit	-	32	25	25	25	25	25	25	25

Tax	-	14	14	14	14	14	14	14	14
Investment flows	(1,755)	(170)	-	-	-	(95)	-	-	-
Free cash flow	(1,755)	(125)	40	40	40	(55)	40	40	40
Discount factor	0.950	0.859	0.776	0.701	0.633	0.572	0.516	0.467	0.421
Present value	(1,668)	(107)	31	28	25	(32)	20	18	17

3 PLATFORM DELAYED TWELVE MONTHS

FY	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034
Platform contribution	-	-	166	331	331	331	331	331	331
Other net benefit	-	-	(6)	25	25	25	25	25	25
Tax	-	16	2	(16)	(16)	(16)	(16)	(16)	(16)
Investment flows	(1,755)	(170)	-	-	-	(95)	-	-	-
Free cash flow	(1,755)	(154)	161	341	341	246	341	341	341
Discount factor	0.950	0.859	0.776	0.701	0.633	0.572	0.516	0.467	0.421
Present value	(1,668)	(132)	125	239	216	141	176	159	144

4 PLATFORM VOLUME DOWN 15%

FY	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034
Platform contribution	-	141	282	282	282	282	282	282	282
Other net benefit	-	32	25	25	25	25	25	25	25
Tax	-	1	(11)	(11)	(11)	(11)	(11)	(11)	(11)
Investment flows	(1,755)	(170)	-	-	-	(95)	-	-	-
Free cash flow	(1,755)	3	296	296	296	201	296	296	296
Discount factor	0.950	0.859	0.776	0.701	0.633	0.572	0.516	0.467	0.421
Present value	(1,668)	3	229	207	187	115	153	138	125

5 CONTRIBUTION PER UNIT DOWN 10%

FY	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034
Platform contribution	-	149	298	298	298	298	298	298	298
Other net benefit	-	32	25	25	25	25	25	25	25
Tax	-	0	(13)	(13)	(13)	(13)	(13)	(13)	(13)
Investment flows	(1,755)	(170)	-	-	-	(95)	-	-	-
Free cash flow	(1,755)	11	311	311	311	216	311	311	311
Discount factor	0.950	0.859	0.776	0.701	0.633	0.572	0.516	0.467	0.421
Present value	(1,668)	9	241	218	197	123	161	145	131

6 INSOURCING SAVING DOWN 25%

FY	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034
Platform contribution	-	166	331	331	331	331	331	331	331
Other net benefit	-	20	2	2	2	2	2	2	2
Tax	-	(0)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
Investment flows	(1,755)	(170)	-	-	-	(95)	-	-	-
Free cash flow	(1,755)	15	320	320	320	225	320	320	320
Discount factor	0.950	0.859	0.776	0.701	0.633	0.572	0.516	0.467	0.421
Present value	(1,668)	13	248	224	202	128	165	149	135

7 CAPITAL COST UP 10%

FY	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034
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Platform contribution	-	166	331	331	331	331	331	331	331
Other net benefit	-	32	25	25	25	25	25	25	25
Tax	-	0	(14)	(14)	(14)	(14)	(14)	(14)	(14)
Investment flows	(1,931)	(178)	-	-	-	(95)	-	-	-
Free cash flow	(1,931)	20	343	343	343	248	343	343	343
Discount factor	0.950	0.859	0.776	0.701	0.633	0.572	0.516	0.467	0.421
Present value	(1,835)	17	266	240	217	142	177	160	144

8 CAPITAL COST DOWN 5%									
FY	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034
Platform contribution	-	166	331	331	331	331	331	331	331
Other net benefit	-	32	25	25	25	25	25	25	25
Tax	-	(2)	(16)	(16)	(16)	(16)	(16)	(16)	(16)
Investment flows	(1,667)	(166)	-	-	-	(95)	-	-	-
Free cash flow	(1,667)	29	340	340	340	245	340	340	340
Discount factor	0.950	0.859	0.776	0.701	0.633	0.572	0.516	0.467	0.421
Present value	(1,585)	25	264	238	215	140	176	159	143

9 DISCOUNTED AT THE GROUP HURDLE RATE									
FY	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034
Platform contribution	-	166	331	331	331	331	331	331	331
Other net benefit	-	32	25	25	25	25	25	25	25
Tax	-	(1)	(16)	(16)	(16)	(16)	(16)	(16)	(16)
Investment flows	(1,755)	(170)	-	-	-	(95)	-	-	-
Free cash flow	(1,755)	26	341	341	341	246	341	341	341
Discount factor	0.945	0.844	0.753	0.673	0.601	0.536	0.479	0.427	0.382
Present value	(1,658)	22	257	229	205	132	163	146	130

10 MILESTONE 2 DEFERRED THREE WEEKS									
FY	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034
Platform contribution	-	146	331	331	331	331	331	331	331
Other net benefit	-	28	25	25	25	25	25	25	25
Tax	-	1	(16)	(16)	(16)	(16)	(16)	(16)	(16)
Investment flows	(1,755)	(170)	-	-	-	(95)	-	-	-
Free cash flow	(1,755)	5	341	341	341	246	341	341	341
Discount factor	0.950	0.859	0.776	0.701	0.633	0.572	0.516	0.467	0.421
Present value	(1,668)	4	264	239	216	141	176	159	144

11 MANAGEMENT CASE									
FY	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034
Platform contribution	-	166	331	331	331	331	331	331	331
Other net benefit	-	32	25	25	25	25	25	25	25
Tax	-	(2)	(16)	(16)	(16)	(16)	(16)	(16)	(16)
Investment flows	(1,667)	(166)	-	-	-	(95)	-	-	-
Free cash flow	(1,667)	29	340	340	340	245	340	340	340
Discount factor	0.950	0.859	0.776	0.701	0.633	0.572	0.516	0.467	0.421
Present value	(1,585)	25	264	238	215	140	176	159	143

12 COMBINED DOWNSIDE									
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FY	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034
Platform contribution	-	-	127	253	253	253	253	253	253
Other net benefit	-	-	(18)	2	2	2	2	2	2
Tax	-	18	8	(5)	(5)	(5)	(5)	(5)	(5)
Investment flows	(1,931)	(178)	-	-	-	(95)	-	-	-
Free cash flow	(1,931)	(159)	117	250	250	155	250	250	250
Discount factor	0.950	0.859	0.776	0.701	0.633	0.572	0.516	0.467	0.421
Present value	(1,835)	(137)	91	175	158	89	129	117	106

BREAK EVEN									
Question	Base	At zero	Break even	As % of base					How it is derived
Platform revenue needed for a nil net present v	1,019	(1,546)	1,068	104.8%	The relationship is linear because the tax rate is flat and no loss limitation applies, so the break even is read off run 1 and run 2 directly.				
Capital cost that the base case can carry	1,830		1,760	96.2%	Net present value plus capital cost, at the base case benefit.				
Utilisation needed to hold the base case	87.4%		91.6%	104.8%	Both benefit streams scale with hours, so the utilisation break even follows the benefit break even.				

DISCOUNT RATE

The cash flows are in euro, so the build starts from a euro risk free rate and adds a country risk premium, rather than starting from a forint government yield and mixing currencies.

COST OF EQUITY			
Risk free rate, euro	2.50%	% p.a.	10-year German federal bond yield at the appraisal date.
Country risk premium, Hungary	1.90%	% p.a.	Sovereign spread over the euro benchmark, adjusted for relative equity market volatility.
Equity risk premium	5.50%	% p.a.	Long run mature market premium.
Unlevered beta, automotive components	0.95	x	Sector median for Tier-2 component manufacturers.
Target gearing, debt to debt plus equity	35.00%	%	Group target capital structure, not the current position.
Relevered beta	1.42	x	Hamada, at the target gearing and the statutory tax rate.
Small company premium	1.50%	% p.a.	Applied for a single site business with one dominant customer.
Cost of equity	13.69%	% p.a.	Capital asset pricing model, with the country and size premiums added.
COST OF DEBT			
Pre-tax cost of debt	5.60%	% p.a.	Contracted rate on the term loan that funds machine finance. The same rate appears in the 13-week cash flow forecast.
Tax shield	9.0%	%	Statutory rate.
Post-tax cost of debt	5.10%	% p.a.	Interest is deductible.
WEIGHTED AVERAGE COST OF CAPITAL			
Weight of equity	65.0%	%	
Weight of debt	35.0%	%	
WACC, rounded to the nearest 10 basis points	10.70%	% p.a.	The rate used to discount the project.
Group hurdle rate for capacity investment	12.00%	% p.a.	WACC plus a margin required by the group for discretionary capacity. Reported alongside the WACC, not instead of it.

A note on what is not in here. No project specific risk premium has been added to the discount rate. Project risk is dealt with where it belongs, in the cash flows and in the twelve scenarios, not by inventing a rate. Adding a premium to the rate and then also running a downside case charges the same risk twice.

ASSUMPTIONS AND CONTROL PANEL

Halcyon Metalworks Kft. | 5-axis machining centre, programme P-4471 | appraisal date 24 July 2026 | EUR '000 unless stated | blue = input, green = link, black = calculated

APPRAISAL CONTROL			
Appraisal date	24-Jul-26	date	Board paper for the July capital committee.
First year of the appraisal	2,026	FY	Calendar year end. FY2026 carries the capital spend and no benefit.
Appraisal period	10	years	Ten years: one year of installation and nine years of operation, which is the shortest credible economic life for a machine of this class.
Discount convention	2	1 / 2	1 = end of year, 2 = mid year. Mid year is the default: the cash flows arise through the year, not on 31 December.
Scenario selector	1	1 to 12	Selects which run on the Scenarios tab drives the summary commentary. The appraisal itself is always the base case.

CAPITAL COST			
Machine contract value	1,550	EUR '000	Signed quotation, three-stage payment. The same milestones appear in the 13-week cash flow forecast.
Installation and commissioning	85	EUR '000	Foundation, power, extraction and vendor commissioning.
Tooling, fixtures and probing	120	EUR '000	First set only. Replacement tooling is in the operating cost build.
Operator training	35	EUR '000	Four operators, two weeks at the vendor academy.
MES and quality system integration	40	EUR '000	Machine data capture into the existing MES.
Total capital cost	1,830	EUR '000	Everything that must be spent before the first saleable part.

OPERATING PARAMETERS			
Machine hours available per year	4,600 h	hours	Three shifts, 250 days, 22.5 hours a day at 82% availability. Availability is the vendor figure discounted by the plant's own experience.
Internal conversion cost per machine hour	41.00	EUR / h	Direct labour, energy, consumables and cell overhead. Excludes material, which is unaffected by where the part is machined.
Benefit ramp, first operating year	50.0%	% of steady state	Machine live 01-Feb-2027, then a ramp through programme qualification. Half a year of steady state benefit in FY2027.
Corporate income tax rate	9.0%	%	Hungarian corporate income tax. Local business tax is excluded from the appraisal because it is levied on a modified base that this investment does not change materially.
Working capital investment	95	EUR '000	Work in progress and tooling stock once machining is insourced. Released at the end of the appraisal period.
Mid-life overhaul	95	EUR '000	Spindle and rotary table refurbishment, FY2031, per the vendor's schedule.
Mid-life overhaul year	2,031	FY	Year six of operation.
Residual value	186	EUR '000	12% of the machine contract value. Set equal to written down value so that no disposal gain is assumed.

EXCLUDED FROM THE BASE CASE, DELIBERATELY			
Headcount reduction	29	EUR '000 / yr	One operator runs the cell where three machines needed 1.6 FTE. Excluded: the plant is capacity constrained, not labour constrained, so the freed hours go to the new platform rather than off the payroll.
Lead time and inventory benefit	34	EUR '000 / yr	Insourcing removes two weeks of transit and subcontractor queue. Real, but not committed to by operations, so it is not in the case.
Freight saving on subcontract movements	11	EUR '000 / yr	Small and hard to isolate from the wider logistics budget.
Development tax allowance		not quantified	Hungary offers a corporate tax allowance for qualifying investments. Eligibility and thresholds must be confirmed with the tax adviser before any benefit is claimed, so nothing is taken here.
Excluded benefits, total	74		Quantified but left out. Stated here so that the committee can see what has been kept out of the case, not only what has been put into it.

BASIS OF PREPARATION	
-	Incremental cash flows only. Anything that happens whether or not the machine is bought is out of scope.
-	Financing cash flows are excluded. The project is appraised at the weighted average cost of capital, so interest and loan repayments must not also appear in the cash flows: that would charge the cost of capital twice.
-	Depreciation appears only in the tax computation. It is not a cash flow.
-	Tax is computed on the incremental taxable profit of the project, at the flat statutory rate, with no assumption about group relief or loss carry forward.
-	Every benefit is built from volumes, rates and hours on the Benefits Build tab. No benefit is entered as a single number.
-	All figures are illustrative and relate to a fictional company. No client data appears in this file.

INTEGRITY CHECKS

Halcyon Metalworks Kft. | every check must read OK before the paper goes to the committee

Master control

ALL CHECKS OK

16 of 16 checks passed

	Check	Expected	Actual	Difference	Status	What it proves
1	Capital cost build agrees to the milestone schedule	1,830.00	1,830.00	-	OK	The number being appraised is the number that will be paid.
2	Capital expenditure in the cash flow agrees to the schedule	1,830.00	1,830.00	-	OK	Nothing has been left out of the cash flow or counted twice.
3	Depreciation over the life equals cost less residual	1,644.00	1,644.00	-	OK	The asset is written down to exactly its residual value, so no disposal gain is smuggled into the case.
4	Working capital nets to nil over the appraisal period	-	-	-	OK	Working capital is a timing item, not a benefit.
5	Free cash flow equals the sum of its components	1,184.55	1,184.55	-	OK	No line is missing from the cash flow.
6	Net present value equals the sum of the present value row	(70.39)	(70.39)	-	OK	Two routes to the same figure: the discounted row and the discount factors applied to the cash flow.
7	Cumulative present value ends at the net present value	(70.39)	(70.39)	-	OK	The chart on the summary page ends where the appraisal does.
8	Net present value at the internal rate of return is nil	-	-	-	OK	Confirms the internal rate of return is the rate that sets the net present value to zero on this convention.
9	Benefit build totals agree to the cash flow	3,829.25	3,829.25	-	OK	The nine operating years of benefit reconcile to the steady state build times the ramp.
10	Incremental operating cost agrees to the build	779.15	779.15	-	OK	Maintenance starts a year later than the other costs, and the check carries that difference rather than ignoring it.
11	Tax is the statutory rate on taxable profit, every year	10.00	10.00	-	OK	No year has been overridden.
12	WACC equals the weighted average of its components	0.11	0.11	-	OK	The rate on the appraisal is the rate that was built.
13	Machine hours required do not exceed hours available	1.00	1.00	-	OK	Both benefit streams have to fit on one machine.
14	Scenario engine run 1 reproduces the appraisal	(70.39)	(70.39)	-	OK	The twelve runs are genuine re-runs of the model, not adjustments to the base case.
15	Scenario engine run 1 reproduces the internal rate of return	0.10	0.10	-	OK	As above, on the return measure.
16	No formula errors anywhere on the appraisal or the engine	-	-	-	OK	Self-explanatory, and worth testing every time.