

# Capital Project Appraisal Presentation.

Financial Management and Planning  
ACPA7002

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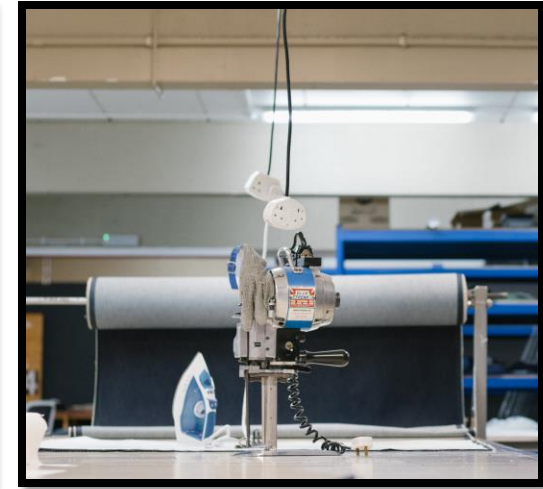
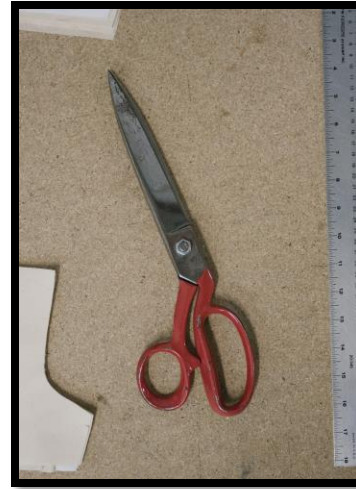
# Hiut Denim Cutting Process.

## Why are we here?

- To improve efficiency and accuracy
- Reduce waste and be lower impact
- Move into custom-made jeans

## What are we discussing?

Comparison of Automatic Cutting Machine vs manual cutting process.



*'good business model design depends as much on art and intuition as it does on science and analysis' and 'requires deep knowledge of customer needs and the technological and organisational resources that might meet those needs.'* Teece 2018.



# What does the project bring or solve for the business?

High level of  
efficiency

Profitability

Facilitate Just  
in Time (JIT)

Reduction of  
waste

Small carbon  
footprint

Reduces time  
to market

Speed up  
development  
process

Industry 4.0  
standard

Remote real-  
time technical  
support

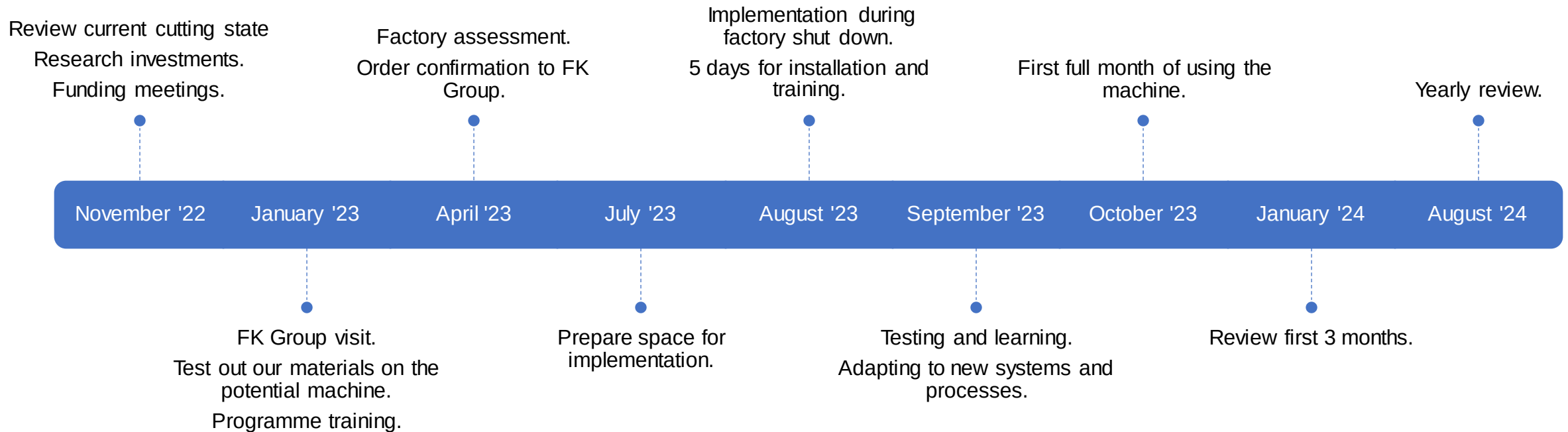
Opportunity  
to upskill staff

Increase  
jeans cut per  
day

Bespoke  
offering



# Timeline for implementation



# What is the cost of the project?



| Automatic Cutting Machine |   |            |                   |
|---------------------------|---|------------|-------------------|
| Machinery                 | 1 | £62,465.00 | £62,465.00        |
| Calibrator                | 1 | £562.00    | £562.00           |
| Set up Costs              | 4 | £562.00    | £2,248.00         |
|                           |   |            | <b>£65,275.00</b> |

|                                                                |    |         |           |
|----------------------------------------------------------------|----|---------|-----------|
| Electricity 28.7KWh/ per day. Based on 39 hour week x 48 weeks | 12 | £122.30 | £1,467.60 |
| Annual service                                                 | 1  | £450.00 | £450.00   |
| Filter replacement per annum                                   | 1  | £220.00 | £220.00   |



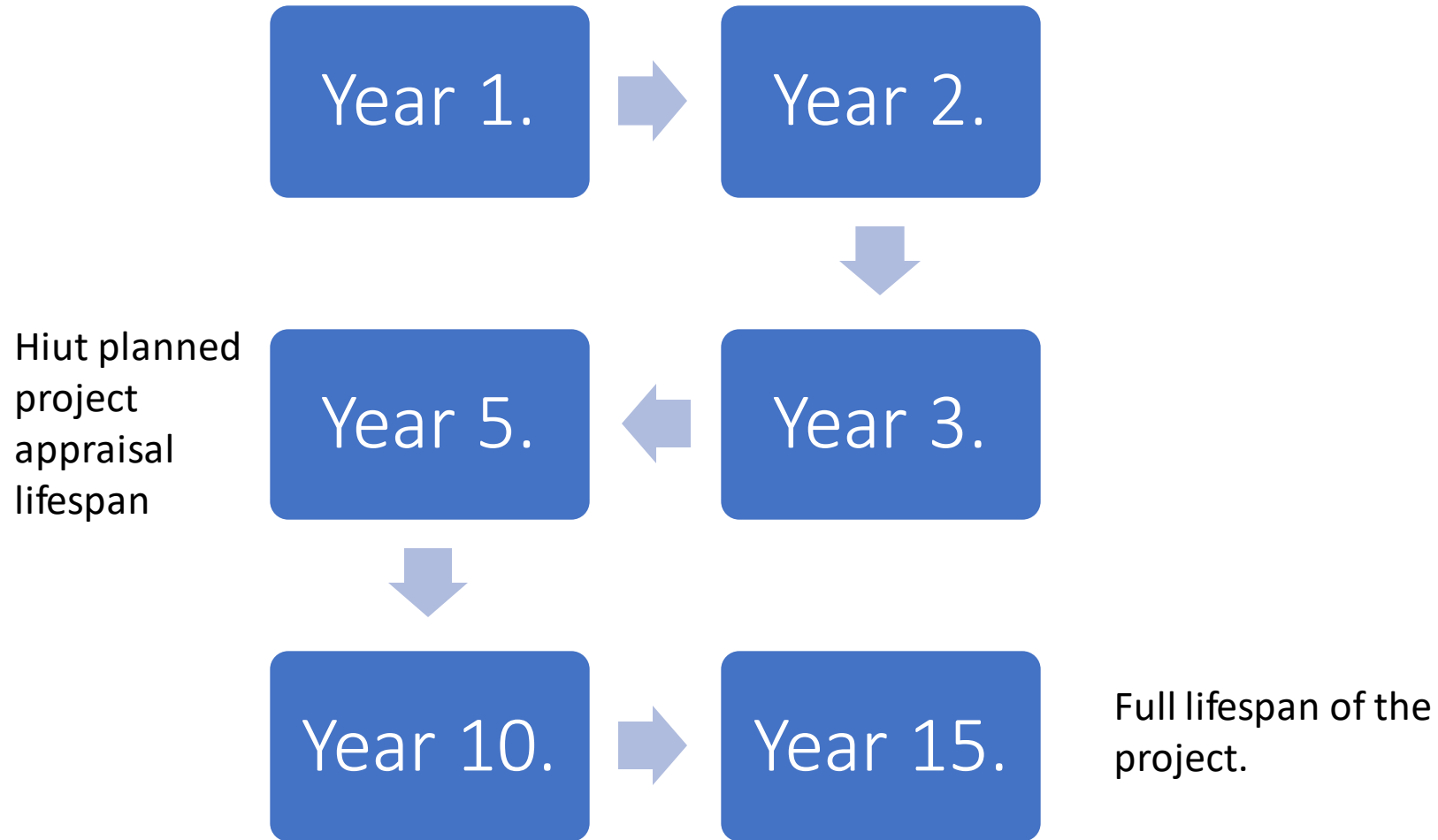
| MANUAL CUTTING                                           |         |               |               |               |               |               |
|----------------------------------------------------------|---------|---------------|---------------|---------------|---------------|---------------|
| Year                                                     | 0       | 1             | 2             | 3             | 4             | 5             |
| Inflation                                                | 0%      |               |               |               |               |               |
| Selling Price                                            | £202.50 | £202.50       | £202.50       | £202.50       | £202.50       | £202.50       |
| Units                                                    | 0       | 10,000        | 11,000        | 13,200        | 14,400        | 14,400        |
| Cap at 14400 (300 per week) for factory floor production |         |               |               |               |               |               |
| Revenue                                                  | £0.00   | £2,025,000.00 | £2,227,500.00 | £2,673,000.00 | £2,916,000.00 | £2,916,000.00 |
| Inflation                                                | 0%      |               |               |               |               |               |
| Variable Cost (per unit)                                 | £82.50  | £82.50        | £82.50        | £82.50        | £82.50        | £82.50        |
| Variable Cost                                            | £0.00   | £825,000.00   | £907,500.00   | £1,089,000.00 | £1,188,000.00 | £1,188,000.00 |
| Inflation                                                | 0%      |               |               |               |               |               |
| Overheads                                                |         | £670,000.00   | £703,500.00   | £738,675.00   | £775,608.75   | £814,389.19   |
| Net Cashflow                                             |         | £530,000.00   | £616,500.00   | £845,325.00   | £952,391.25   | £913,610.81   |

| AUTOMATIC CUTTING                                        |         |               |               |               |               |               |
|----------------------------------------------------------|---------|---------------|---------------|---------------|---------------|---------------|
| Year                                                     | 0       | 1             | 2             | 3             | 4             | 5             |
| Inflation                                                | 0%      |               |               |               |               |               |
| Selling Price                                            | £202.50 | £202.50       | £202.50       | £202.50       | £202.50       | £202.50       |
| Units                                                    | 0       | 10,000        | 11,000        | 13,200        | 14,400        | 14,400        |
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| Revenue                                                  | £0.00   | £2,025,000.00 | £2,227,500.00 | £2,673,000.00 | £2,916,000.00 | £2,916,000.00 |
| Inflation                                                | 0%      |               |               |               |               |               |
| Variable Cost (per unit)                                 | £60.00  | £60.00        | £60.00        | £60.00        | £60.00        | £60.00        |
| Variable Cost                                            | £0.00   | £600,000.00   | £660,000.00   | £792,000.00   | £864,000.00   | £864,000.00   |
| Inflation                                                | 0%      |               |               |               |               |               |
| Overheads                                                |         | £650,000.00   | £682,500.00   | £716,625.00   | £752,456.25   | £790,079.06   |
| Net Cashflow                                             |         | £775,000.00   | £885,000.00   | £1,164,375.00 | £1,299,543.75 | £1,261,920.94 |

|             | Year 0      | Yr 1        | Yr 2        | Yr 3        | Yr 4        | Yr 5        |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Cash Saving | -£65,275.00 | £245,000.00 | £268,500.00 | £319,050.00 | £347,152.50 | £348,310.13 |



# What is the full lifespan of the project?



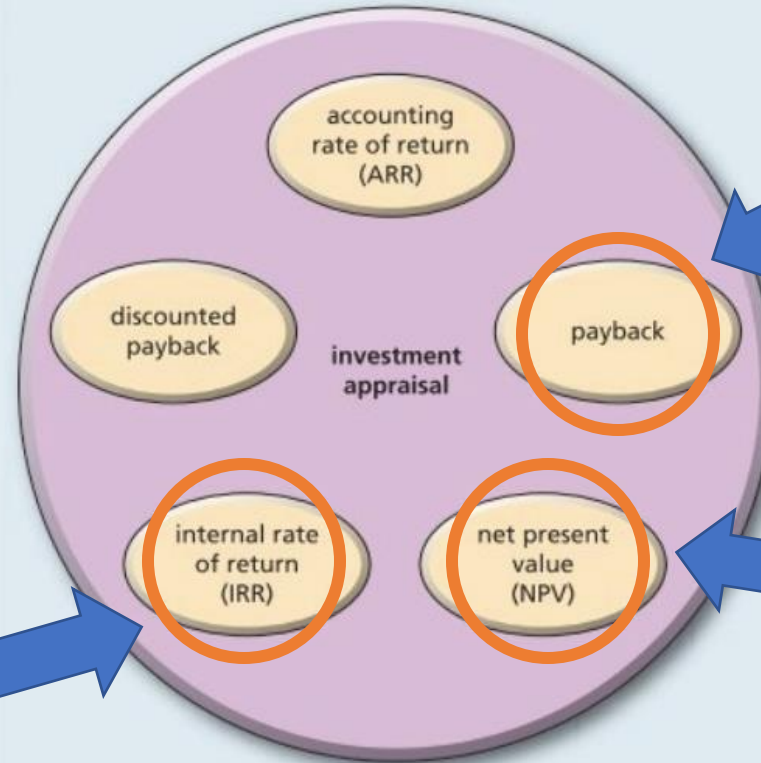
# Any issues that implementation will cause?



# What is the rationale of the business?

Figure 15.1

The five main investment appraisal methods



Payback less than 5 years. Less than 3 is desirable.

Positive NPV from a WACC of 10%

IRR is greater than 20%

Davies, T & Crawford, I. (2011).



# Model the project

| Net Present Value    |               |             |             |               |             |             |
|----------------------|---------------|-------------|-------------|---------------|-------------|-------------|
|                      | Year 0        | Yr 1        | Yr 2        | Yr 3          | Yr 4        | Yr 5        |
| Present Value        | -£65,275.00   | £245,000.00 | £268,500.00 | £319,050.00   | £347,152.50 | £348,310.13 |
| Discount Rate (WACC) | 10%           |             |             |               |             |             |
| Denominator          | 1.00          | 0.909       | 0.826       | 0.751         | 0.683       | 0.621       |
| Future Value         | -£65,275.00   | £222,705.00 | £221,781.00 | £239,606.55   | £237,105.16 | £216,300.59 |
| NPV                  | £1,072,223.30 |             | Excel NPV   | £1,072,443.10 |             |             |

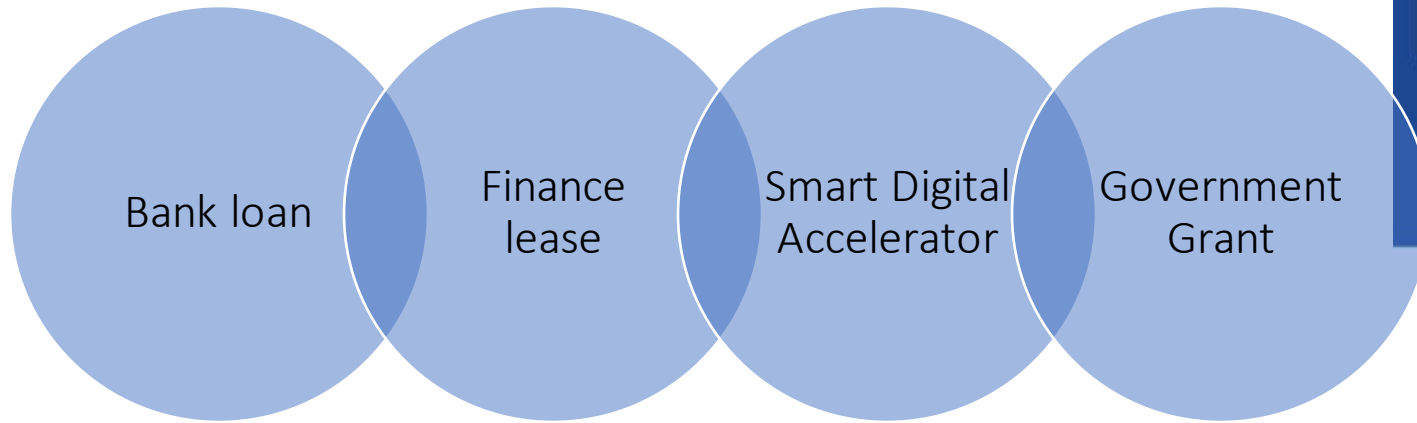
| Profitability Index |        |               |        |             |
|---------------------|--------|---------------|--------|-------------|
| NPV of Cash Flows   |        | £1,072,223.30 |        |             |
| Investment          | equals | £65,275.00    | equals | 16.42624734 |

| BCR              |        |               |        |             |
|------------------|--------|---------------|--------|-------------|
| NPV - Investment |        | £1,006,948.30 |        |             |
| Investment       | equals | £65,275.00    | equals | 15.42624734 |

| Internal Rate of Return |  |      |  |  |
|-------------------------|--|------|--|--|
| IRR                     |  | 386% |  |  |

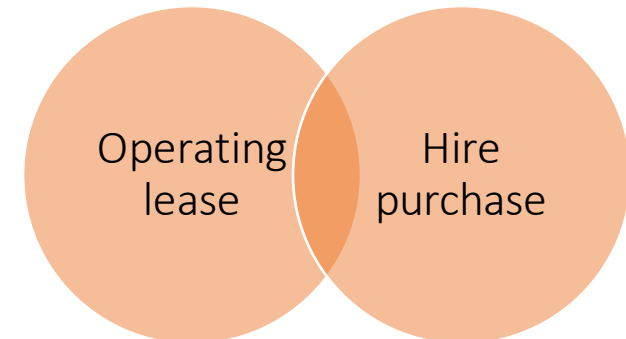


# What are the options for funding the project?



|                                                                                                                                                                                                                         |                                                            |                                                                                    |        |   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------------------------------|--------|---|
| Amount                                                                                                                                                                                                                  | -                                                          | £                                                                                  | 25,000 | + |
| Term                                                                                                                                                                                                                    | -                                                          | 60                                                                                 | months | + |
| Monthly repayment<br><b>£523.70</b><br>The same every month                                                                                                                                                             | Total amount payable<br><b>£31,422.00</b><br>Loan required | Representative APR<br><b>9.8%</b><br>Based on the loan amount and term you entered |        |   |
| <b>Representative example</b><br>9.8% APR Representative based on a loan of £25,000<br>repayable over 60 months at an interest rate of 9.8% pa (fixed).<br>Monthly repayment of £528.72 Total amount payable £31,723.16 |                                                            |                                                                                    |        |   |

S M A R T  
Digital  
Accelerator



# Conclusion and recommendation

