Eakin Healthcare

Capital Project Appraisal

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Financial Management & Planning

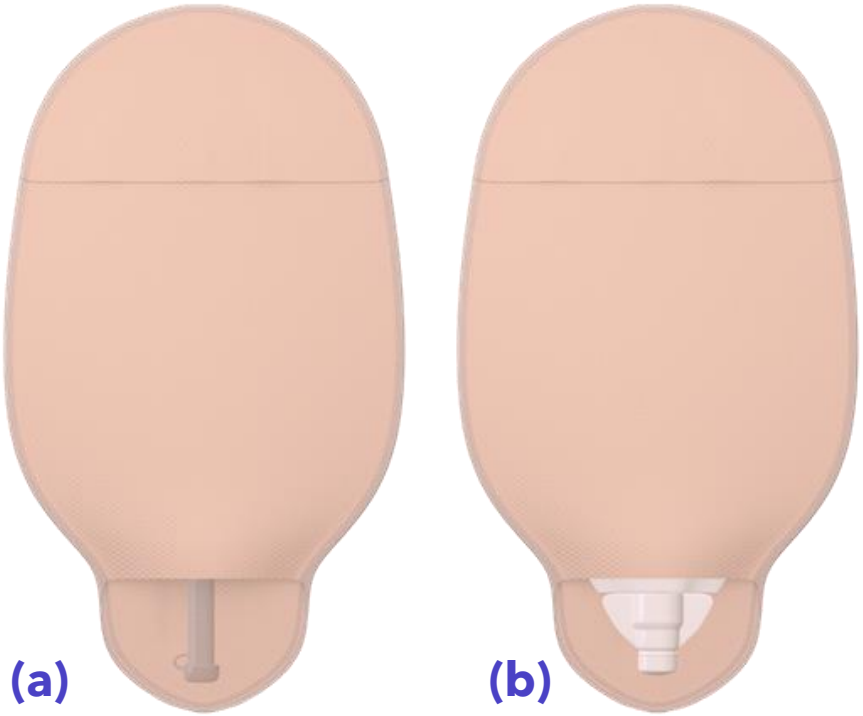
Company Overview

Eakin Healthcare is a family-owned business based in Northern Ireland, manufacturing and supplying medical devices for ostomy, wound, respiratory and surgical needs.

All of the manufacturing of products takes place in the UK within the three core sites in:

Comber, N. Ireland | Coleraine, N. Ireland | Cardiff, Wales

Executive Summary



Investment to develop the next generation Eakin Urostomy outlet has the potential to grow market share and consequently expanding the business which in turn increase brand awareness.

At present, the existing Urostomy outlets consists of two types; Bung **(a)** and Tap **(b)**

A proposed redesign on both Urostomy outlets is recommended to allow the company to compete with competitor products by ensuring user satisfaction is acquired from the use of the products.

The Project

Present State

- Eakin Healthcare manufactures their Ostomy sites within their sites in Comber, N. Ireland and Cardiff, Wales.
- Market feedback have identified the need for the current Bung and Tap parts to be redesigned to meet the requirements of the user as well as better compete with competitors.
- Current Bung and Tap parts are manufactured by an external injection molding company.
- Externally molded parts are assembled within the manufactured Urostomy bags in both N. Ireland and Wales sites.

Future State

- Invest in the R&D of a new generation of Bung and Tap designs which better aids with the needs of the users.
- Invest in the manufacturing transfer of the parts internally within the **Coleraine, N. Ireland** site with its injection moulding capabilities.
- Invest in new tooling for the manufacture of the new generation Bung and Taps.
- Invest in machinery extensions to accommodate the assembly of the new parts within the existing manufacturing lines.

Project Benefits

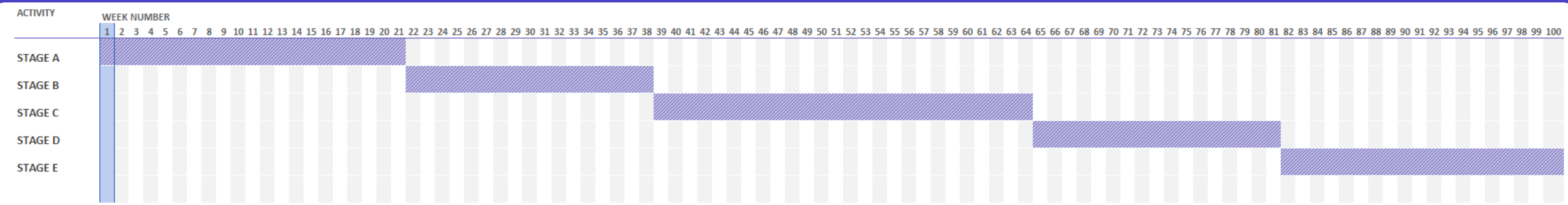
New generation Bung and Tap designs:

- Increase market share in the UK and Globally
- Provide improve confidence and security in the products
- Gain user confidence in product, in turn promoting the brand
- Demonstrates evidence of addressing user needs
- Develop in-house knowledge on part sealing performance and technology
- Develop internal skills and development tools within injection molding

Shifting injection molding manufacturing internally:

- Develop internal knowledge with injection molding design
- Improve management of injection molding tools
- Development of quality control on parts leading to improve performances
- Improve management of part manufacturing quantities

Estimated Project Timeframe



Key Activities

- **Stage A** – Project Strategy and Identification (5 Months)
- **Stage B** – Design and Development Inputs (4 Months)
- **Stage C** – Design and Development Outputs (6 Months)
- **Stage D** – Design and Process V&V (4 Months)
- **Stage E** – Product Launch (5 Months)

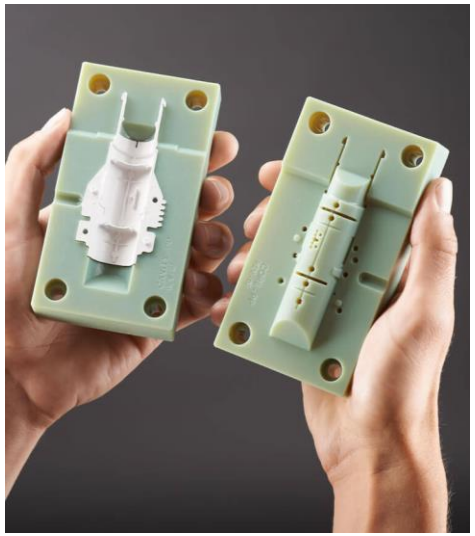
Project Completion

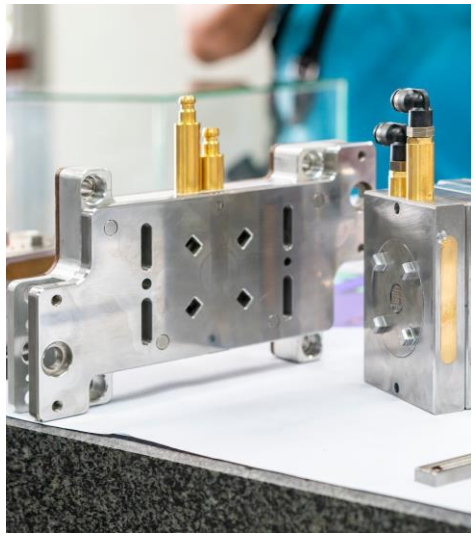
24 Months

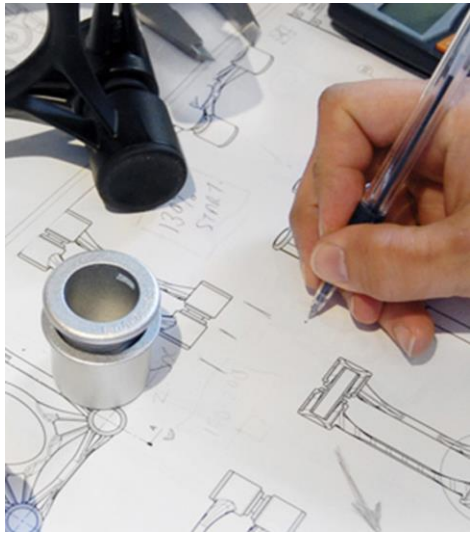
Project Costs

	Details	Costs
External Costs	Prototyping, Testing, Soft Tool Development, Tool Trials,	£41,087.25
Capex		
	Injection Mold Tooling Capex	£192,500.00
	Machine Extensions CAPEX	£74,782.61
Internal R&D Costs	Team Resource	£141,937.00
Non - R&D Costs		£74,704.00

Total R&D Project Investment Cost	**£525,011.46**







Part Costings

Cost Breakdown

Part	New Parts Costs (External)	New Parts Costs (Internal)	Tooling CAPEX (Internal) Tooling
Bung	£0.1550	£0.0730	£53,500.00
Tap Assembly	£0.5700	£0.0193	-
Weldable Part	£0.1100	£0.0500	£42,500.00
Rotatable Part	£0.1100	£0.0550	£46,000.00
Cap	£0.1050	£0.0830	£27,500.00
Adaptor	£0.1300	£0.0900	£23,000.00
Total Tooling Investment			£192,500.00

Parts Costs Difference

(External) vs (Internal) Fabrication Parts Costs Difference	Current Parts vs New Developed Parts Difference
£0.082	**£0.007**
£0.551	**£0.251**
£0.060	**-**
£0.055	**-**
£0.022	**-**
£0.040	**£0.320**

- Reduced parts costs with internal molding process compared to current external molding process
- Reduction of parts costs leading to reduce COGs on all Urostomy product lines
- Significant tooling CAPEX investment required to shift manufacturing internally
- Additional machinery required to integrate new parts within overall Urostomy bag manufacturing process

Project Rationale

Appraisal Tools

Project Rationale

- **Payback Period** – 4 Years and 3 Months
- **Net Present Value (NPV)** – £77,808 (5 Years) / £187,585 (10 Years)
- **Internal Rate of Return (IRR)** – 4.92% (5 Years) / 19.00% (10 Years)
- **Accounting Rate of Return (ARR)** – 46%
- **Profitability Index (PI)** – 1.15 (5 Years) / 0.64 (10 Years)

Appraisal Calculations

		Years									
	Investment	1	2	3	4	5	6	7	8	9	10
Present Value	-£ 525,011	£ 121,000	£ 121,000	£ 121,000	£ 121,000	£ 121,000	£ 121,000	£ 121,000	£ 121,000	£ 121,000	£ 121,000
Net Benefits	-£ 525,011	-£ 404,011	-£ 283,011	-£ 162,011	-£ 41,011	£ 79,989	£ 200,989	£ 321,989	£ 442,989	£ 563,989	£ 684,989
Payback Period	4.3										
Discount Rate (WACC)	11%										
Denominator	1.000	0.901	0.812	0.731	0.659	0.593	0.535	0.482	0.434	0.391	0.352
Future Value	-£ 525,011	£ 109,009	£ 98,206	£ 88,474	£ 79,706	£ 71,807	£ 64,691	£ 58,281	£ 52,506	£ 47,301	£ 42,614

	5 years	10 Years
Net Present Value (NPV)	-£ 77,808	£ 187,585
Net Present Value (NPV) - Excel	-£ 77,807	£ 187,586
Internal Rate of Return (IRR)	4.92%	19.00%
Profitability Index (PI)	1.15	0.64
Benefit Cost Ratio (BCR)	0.85	1.36
Accounting Rate of Return (ARR)	46%	46%

Project Proposal

Project Summary

- Eakin Healthcare group are key players in the Ostomy product business
- **£525,011** project investment required
- Project expected to provide **product improvement** at both business and customer level
- Project investment **payback** in **4.3 years**
- **Low risk project** – improvements in such components are required to compete with competitor products
- The project can also **reduce the costs** of the components whilst producing **new and improve design**

Conclusion & Recommendations

Conclusion

- Project investment can be recouped in 4.3 years
- Project outcomes - new and improve design and performance
- Transitioning the manufacturing of components internally via the Coleraine injection molding site
- Reduction of cost of goods expected from the project
- Better control with molded components quality

Recommendation

- Appraisal results shows manageable figures for the projects
- Project provides benefits in both the business level as well as the customer level
- Initiation of project can provide improve internal skillsets with designing and managing injection moulded components
- Proposed to proceed with project initiation

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Eakin Healthcare

Thank you