Johnson & Johnson

Case Analysis

Meet the Team

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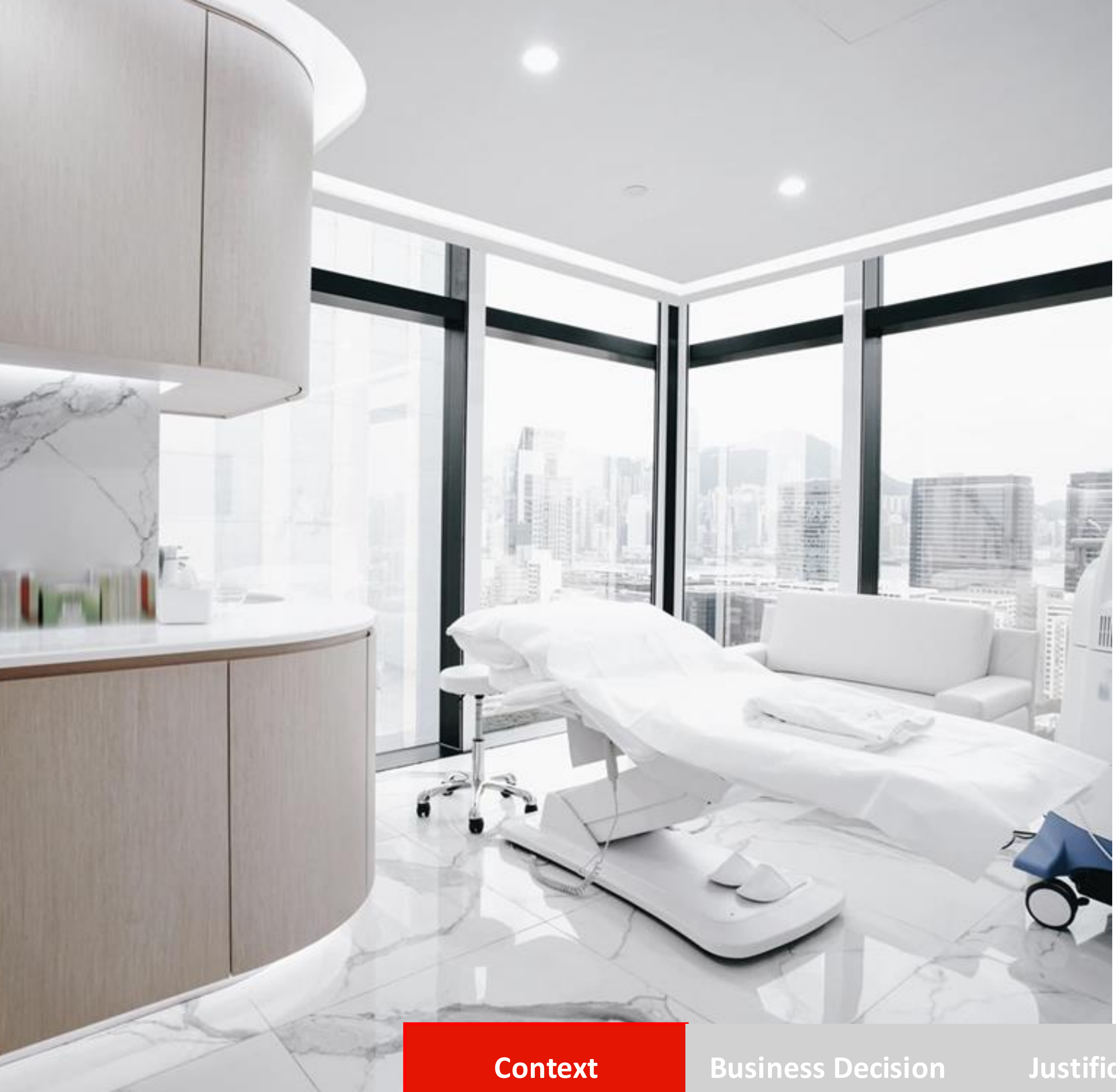


Context

Breaking down the case

Context | Executive Summary

Context	**Swot Analysis** On Aegis & Aegis		**Competitor Analysis** Crius, Athena Pharmaceutical, Hades Medical, Apollo & Nyx		
Business Decision	**R&D** Option 4	**Pricing** Medium	**Marketing** Silver	**Supply Chain** Plant Expansion	**Human Capital** Full time
Justification	**Financial Analysis** How the business decisions impact financial metrics		**Key Performance Metrics** How business decisions affect KPIs		
Risk Analysis	**Risk Identification**	**Likelihood**	**Risk Mitigation**		

Context | SWOT Analysis

Strengths

1. Strong global market presence with competitive industry standing
2. Established and loyal customer base
3. Strong R&D and manufacturing infrastructure
4. Value-driven culture with long term goal alignment

Weaknesses

1. High capital requirements caused by capacity constraints
2. Limited manufacturing capabilities due to facilities operating a max capacity
3. Gap in barbed suture offerings compared to the market shift
4. Slower response to innovation trends

Opportunities

1. Growing global wound market for sustained growth opportunities
2. Ability to expand portfolio to include barbed sutures & increase market capture
3. Best quality for price for symmetrical sutures amongst competitors
4. Strategic partnerships to scale manufacturing capacity

Threats

1. Competition from establish players and alternative solutions
2. Regulatory hurdles and investment cost increase financial risk
3. Pricing pressure balancing profitability & market competitiveness
4. Uncertainty surrounding manufacturing and adoption

Context | Competitor Analysis

Crius (Poseidon)

- Direct, high threat competitor with their flag ship product (Poseidon) barbed sutures
- Already FDA approved and scaled globally
- Competes on performance and surgical efficiency

Athena Pharmaceuticals (Krono)

- Early mover advantage in barbed sutures portfolio with both unidirectional and bidirectional products
- Strong growth potential despite smaller size through innovation and stable revenue

Hades Medical, Apollo & Nyx

- Hades: niche competitor focusing on alternative solutions, smaller threat and market presence
- Apollo & Nyx: large scale company focusing on alternative wound care technology

Key Takeaway

Speed to market, dual product strategy, compete on value and quality, leverage first move advantage, do not overprioritize niche competitors, align supply chain with speed goals -> maintain market share position

Business Decisions

Optimized strategy for A&A

Business Decisions | Investment Strategy - R&D

Internally Develop Spiral

1. **Full control** over a new product + its research strategies
2. First move advantage → **fast gain** in market shares
3. High risk (especially in regulations) but **highest potential returns**

Purchase IP of Symmetrical

1. Secure **immediate market share** to counter existing competitors
2. Generates cash sooner → **discounted less** from the **7% rate**
3. Helps **cover R&D costs** for internally developing spiral

"First-to-Market" status → inherits greater long-term share

Balance upfront CapEx with long-term R&D to optimize the 7% discount rate impact on NPV

Business Decisions | Investment Strategy - R&D (cont.)

What if we choose to: Purchase IP of Spiral / Internally Developing Symmetrical?

Loss of Innovation Leadership

Purchasing IP for the spiral suture means the product will not be first to market, forcing competition with existing products rather than defining the category, resulting in lower market shares

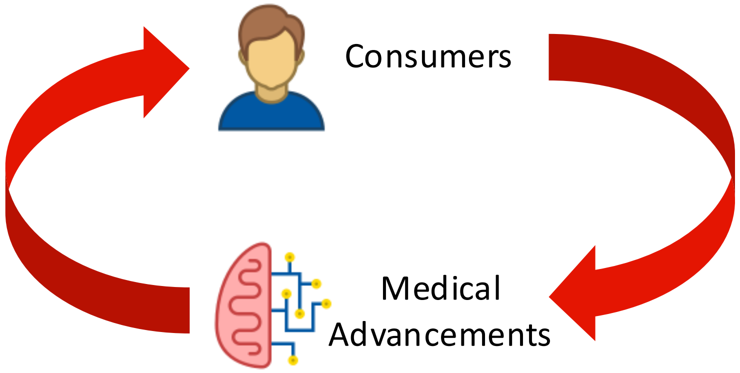
Critical Time Delay in Market Entry

Internally developing results in a “Later to Market” entry because internal development would take longer, which leads to a lower market share outcome in the financial model

Significant Revenue Gap

Because both products would have longer R&D cycles, the company would see a significant delay in Net Trade Sales (NTS) compared to options that include an IP purchase

Option 4 Customer Benefit



“The Credo Alignment”: Option 4 fulfils our responsibility to stockholders by creating “sound profit” through early entry, while honoring our commitment to patients by experimenting new ideas for smarter, less invasive surgical outcomes

Key Takeaway

The Medium Pricing Option honors A&A's Credo by ensuring 80% of customers can afford their life-saving technology. In a transitioning market, adoption, not margin maximization, is the primary value driver. Higher volume and patient access will ultimately drive a more sustainable long-term NPV.

Alignment with A&A Credo	Strategic Competitive Positioning	Financial Synergy With Option 4
Responsibility to customers: providing accessible healthcare	Direct Competition: matching the market average	Balances higher spiral price and lower symmetrical price
Maintaining reasonable prices	Retention of Market Share: defend against competitors	15% increase in reach (65% → 80%) can drive higher NTS
Global Access: affordable for 80% of the target market	Sustainable Growth: sustains current business structure	Lowering adoption barriers as product becomes affordable

Business Decisions | Pricing Strategy (cont.)

Trade-Offs	Low Pricing Option	High Pricing Option
Financial Stability	Absolute **minimum dollar value** to maintain current business structure, leaving zero margin to fund more **R&D**	High margins help provide the **necessary capital** to fund expensive research **without straining** the core business
Market Affordability and Accessibility	**100% Market Affordability.** Protects long-term market share	Only for **65% of customers**. Contradicts the core mission of providing **global access** to affordable healthcare

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Key Takeaway

Why not Low: provides the **lowest dollar value**, failing to generate the "sound profit" to fund the **Spiral R&D** project.

Why not High: creates an exclusive niche affordable for only **65% of the market,** contradicting our mission to provide **global access** to surgical services

Business Decisions | Marketing Strategy

J&J

Strengths

1. Low-cost, scalable digital outreach
2. Quickly activates existing client base
3. Fast to deploy → supports early awareness
4. Data-driven targeting of hospitals

Limitations

1. Limited depth of engagement with surgeons
2. Relies on passive channels (emails, ads)
3. Minimal ability to influence adoption behavior
4. Weak differentiation vs competitors

Key Takeaway

Bronze builds awareness, but not adoption

Business Decisions | Marketing Strategy (cont.)

What Bronze Covers	Critical Gaps
1 Digital ads & email outreach	1 No hands-on product demonstration
2 Broad hospital awareness	2 No surgeon training / education
3 Initial product visibility	3 Limited relationship building
4 Fast, scalable search	4 Cannot influence adoption behavior

Key Takeaway

Awareness ≠ Adoption, engagement is required to drive usage

Execution

Silver-Tier

Market research to identify hospitals with high robotic surgery volume

Physical posters deployed in hospital corridors

Why This Works

1. Reach contacts that matter
2. Reinforce repeated touchpoints
3. Bridge awareness to action
4. Weak differentiation vs competitors

Goal: reach administrators and procurement decision-makers in their environment

Why Not Gold

Investment Cost

A&A could **leverage loyal consumers** they have without heavy investment Gold requires

vs.

From Bronze to Silver

Silver generates **$380K** more NPV than Bronze and **$2.5B** more in cumulative sales

vs.

From Silver to Gold

Gold generates only **$37K** more NPV than Silver while costing 50% more in SG&A

Business Decisions | Supply Chain Strategy – Plant Expansion

Reasoning	Trade Off	Mitigation
Balance cost & control	Moderate CapEx	Long term investment
Long-term margin	Moderate depreciation	Balanced over time
Leverages existing expertise	Higher operating cost	Improved efficiency
Manage risk of overexpansion	Delayed market entry: 3-4 years	Symmetrical IP immediate revenue
Supports internal spiral innovation	Need for more human capital	More full time employees

Why not Outsourcing

1. Reduction in profitability from manufacturing margins
2. Loss over quality control and IP rights
3. Lack of alignment for long term strategy
4. Dependence on external players and reduced flexibility

Why not Constructing a New Plant

1. Highest upfront cost of the 3 options
2. Longest time horizon to realize revenue
3. Risk of overcapacity from spiral tech uncertainty
4. Time and execution risk that can increase overall cost

Key Takeaway

Plant expansion is optimal as it allows A&A to preserve quality and maintain control while avoid extreme cost and delays of building a new facility.

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Business Decisions | Human Capital Strategy

Recommendation: Option 2 **Hiring Full-Time Employees**

Qualities: Long-term commitment, Knowledge-accumulation, Aligned incentives

Long Term Capability

- Supports long term internal development of spiral sutures
- Allows knowledge accumulation, process improvement, and adjustments especially for development of new spiral suture product

Quality & Reliability

- Aligned incentives result in better work quality
- Ensures consistent workforce leading to consistent products, critical for medical devices
- Prevents knowledge leakage of new spiral suture

Credo Alignment

- Provide sense of security, fulfilment, and purpose to employees
- Provide knowledge development for employees
- CSR (Corporate Social Responsibility), employment for qualified candidates

Business Decisions | Human Capital Strategy (cont.)

Trade-offs

Mitigation

Why Not Contractors

Higher Upfront Cost
Paying salaries, benefits, and training cost

- Reduced long term cost
- Lower turnover cost
- Improved efficiency

Less Flexibility
Harder to scale with long term committed employees and fixed costs

- Phased hiring method that aligns with production scale
- Cross train employees

Longer Initialization
Long starting process: recruitment, onboarding, and training

- Start process in parallel with plant expansion
- Leverage A&A expertise

Contractor Qualities:

- Lower up-front cost
- Need based
- Quick onboarding
- Low commitment and loyalty
- Limited alignment with A&A

- Does not support long term internal development of spiral sutures
- Does not ensure consistency, reliability, and confidentiality
- Values might not align with other employees in A&A current's plant facility, creating conflict

Justification

How decisions affect metrics

Justification | Financial Highlights

Highlights		
Financials	**Average**	**Cumulative**
Net Sales	$ 10,418,101	$ 114,599,109
Gross Profit	$ 7,819,224	$ 86,011,468
% NTS	*74%*	*75%*
OpEx	$ 3,456,858	$ 38,025,434
% NTS	*35%*	*33%*
Net Income	$ 3,208,977	$ 35,298,742
% NTS	*28%*	*31%*

Market Assumptions	
Market Growth	**7.5%**

Market Share Metrics	
Beginning Share	**56.4%**
Ending Share	**84.2%**
Peak Share	**84.2%**
Average Share	**69.1%**

Value Creation Metrics	
NPV	**22,270,430**

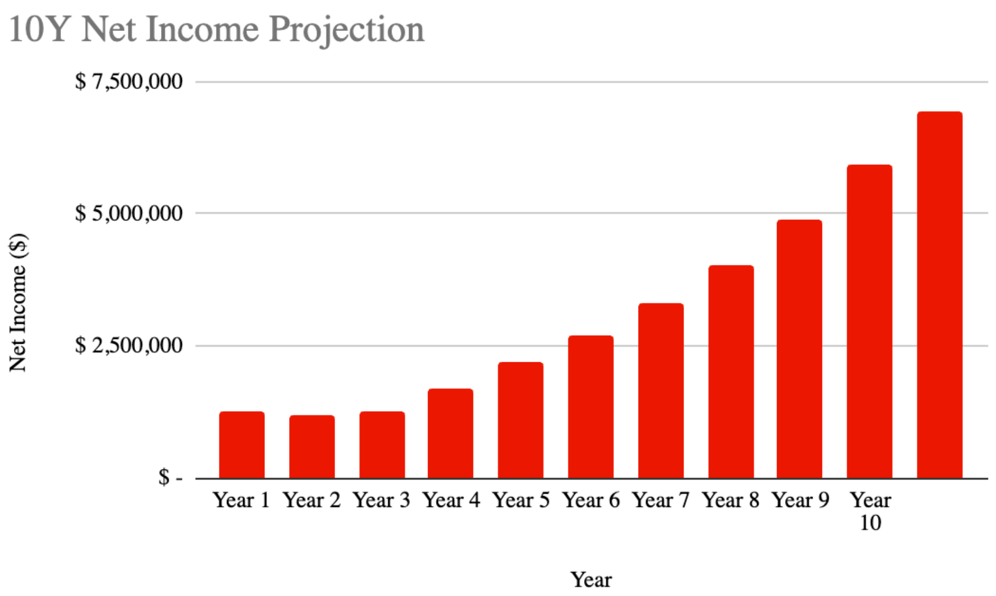
Selected Decision Points	
Decision Point	**Decision**
R&D Strategy:	***Symmetrical: IP, Spiral: Internal***
Symmetrical	IP
Spiral	Internal
Pricing Strategy	Med
Marketing	Silver
Supply Chain	Plant Expansion
Human Capital	Full Time

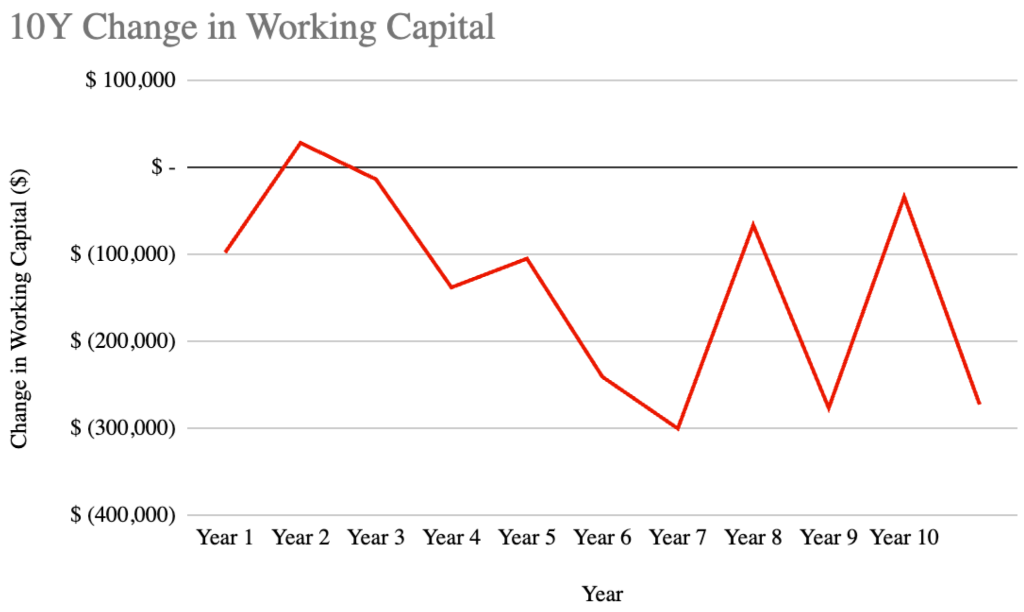
1. Optimize for total profit instead of margin
2. Prioritize stable and scalable impact rather than higher short term gains
3. Drive Strong Market Share Growth

Key Takeaway

Our decisions generate lower NPV in the short term, but improves long-term margins and protects proprietary technology

Justification | Financial Highlights





Key Takeaway

Net income scales strongly over time despite early investment drag, indicating solid long-term profitability. Short-term working capital outflows support growth and enable higher future returns.

Key Performance Metrics

Financial
Net Sales, Profit, Net Income, NPV, Contribution Margin

Market Share
Competitive position in the barbed suture market/Adoption rate of barbed sutures (implied KPI)

Time to Market
Speed of entering the barbed suture market

Impact of our Business Decisions

↑ Net Sales (Revenue Growth)
- Medium pricing + Silver marketing → broad adoption & accessible

↑ Long-term profitability (Margin)
- higher future cash flows from spiral innovation
- Plant expansion + full-time employees → lower costs over time

Short-term ↓ NPV
- Upfront CapEx (plant) + labor investment

↑ Market Share
- Purchase of symmetrical IP → immediate market entry
- Internal spiral development → first-mover advantage

Sustained competitive position
- Medium pricing + Silver marketing → accessible + targeted growth

Fast entry for Symmetrical Sutures
- Symmetrical IP → immediate market entry

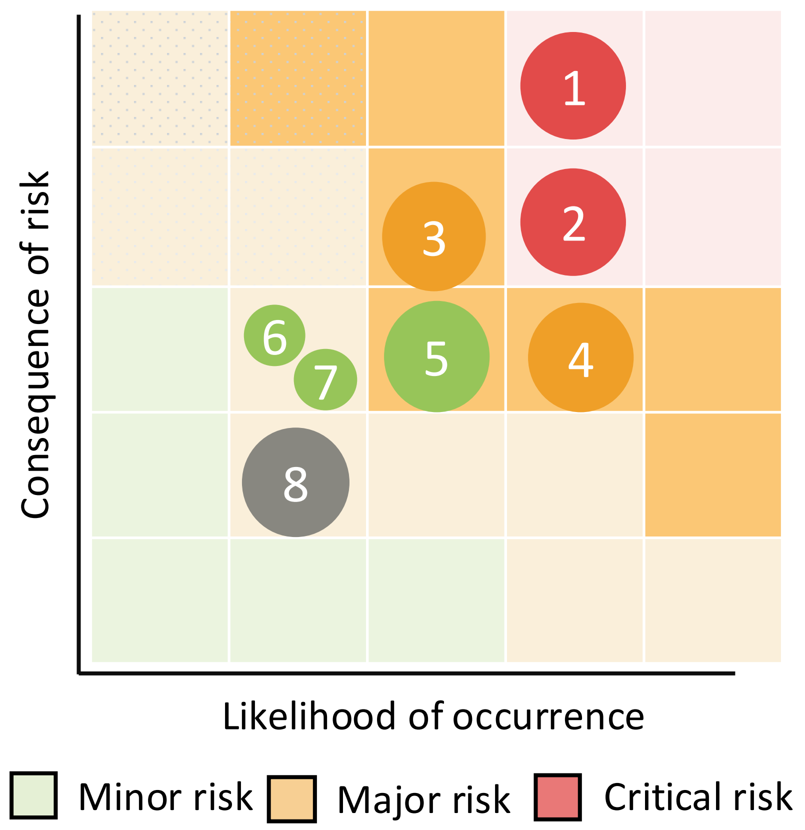
Slower entry for Spiral Sutures, balances quality
- Internal development + plant expansion + full time employees

Risk Analysis

Risk identification and mitigation

Risk Analysis | Risks and Mitigation

Risk Map

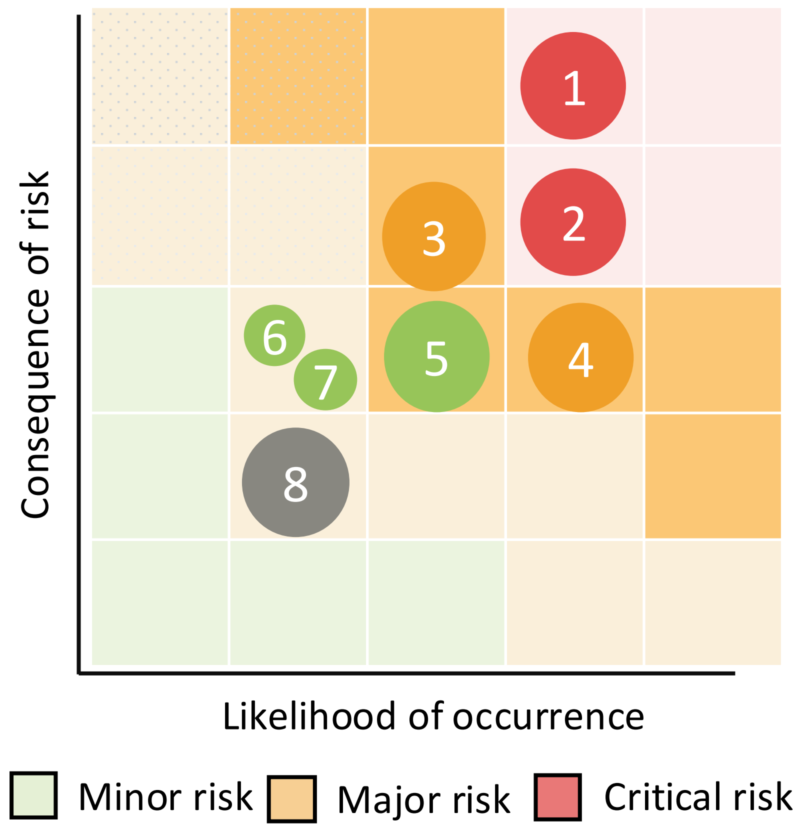


Risks

1. Regulatory
2. Spiral R&D
3. Plant Expansion Timeline
4. Competition
5. Adoption Lag
6. IP Risk
7. Price Pressure
8. HR Costs

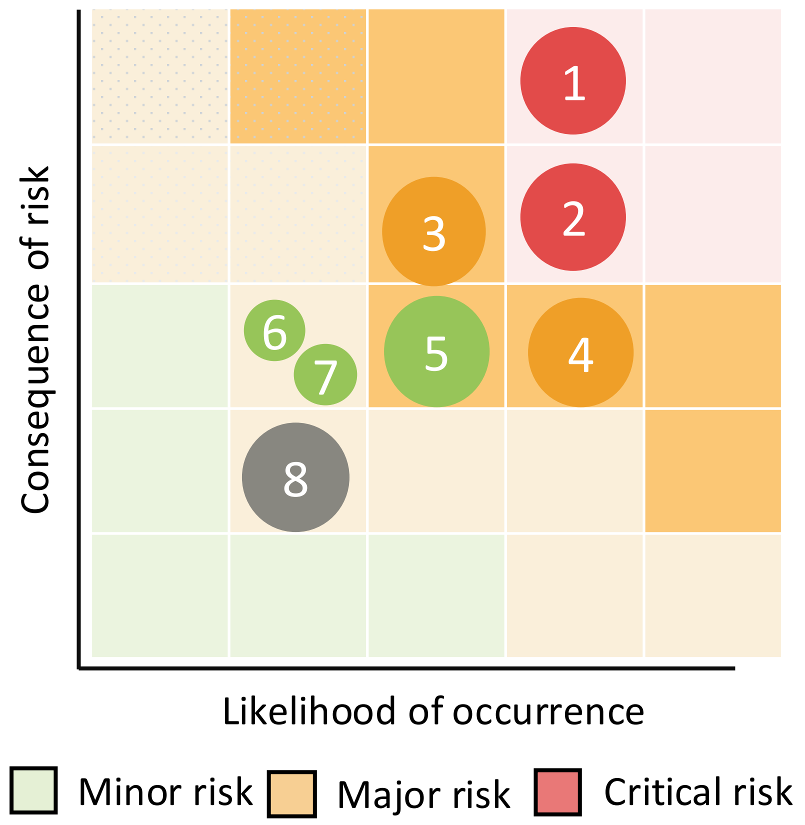
Risk Analysis | Risks and Mitigation (cont.)

Risk Map



	Risks	Mitigation
1	**FDA / Regulatory Approval** No existing product, so approval process is uncertain, delaying launch and reducing returns	Start FDA planning early and submit a pre-check before investing too much in R&D
2	**Spiral R&D Execution** Building a completely new product internally has a high technical risk	Break development into checkpoints to reassess whether to continue
3	**Plant Expansion Timeline** Factory takes ~3 years, so no revenue until Year 4 with high upfront costs	Hire full-time staff gradually as construction progresses rather than all upfront

Risk Map



Risks

4 **Competition**
Crius and Athena are FDA approved and have strong hospital relationships

5 **Adoption Lag**
Surgeons are used to their current sutures, switching takes time

6 **IP Risk**
Buying similar IP means we rely on another company with no competitive edge

Mitigation

- Focus sales reps on high-volume robotic surgery centers where adoption will be fastest
- Give surgeons simple physical pamphlets (Silver model) so they remember and consider using it
- Make sure we can use the IP freely, expand globally, and are protected from legal risks

Thank You & Questions?

Decision Point	Decision
R&D Strategy:	***Symmetrical: IP, Spiral: Internal***
Symmetrical	IP
Spiral	Internal
Pricing Strategy	Med
Marketing	Silver
Supply Chain	Plant Expansion
Human Capital	Full Time

Appendix | Income Statement & Cash Flow Statement

**Financial statements are ficticious and not based on actual results*

$ in 000's	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Cumu
Net Sales	$ 5,600,000	$ 6,188,435	$ 6,916,043	$ 7,743,614	$ 8,692,943	$ 9,726,690	$ 10,921,138	$ 12,268,565	$ 13,826,211	$ 15,471,820	$ 17,243,651	$ 114,599,109
Net Sales Sales Growth Rate	-	10.51%	11.76%	11.97%	12.26%	11.89%	12.28%	12.34%	12.70%	11.90%	11.45%	-
Cost of Goods Sold	$ 1,730,400	$ 1,941,842	$ 2,149,834	$ 2,318,282	$ 2,428,872	$ 2,582,809	$ 2,779,590	$ 2,936,166	$ 3,128,088	$ 3,200,677	$ 3,391,080	$ 28,587,641
% of Sales	30.90%	31.38%	31.08%	29.94%	27.94%	26.55%	25.45%	23.93%	22.62%	20.69%	19.67%	24.95%
Gross Profit	**$ 3,869,600**	**$ 4,246,593**	**$ 4,766,208**	**$ 5,425,331**	**$ 6,264,071**	**$ 7,143,881**	**$ 8,141,548**	**$ 9,332,399**	**$ 10,698,123**	**$ 12,271,143**	**$ 13,852,571**	**$ 86,011,468**
% of Sales	69.10%	68.62%	68.92%	70.06%	72.06%	73.45%	74.55%	76.07%	77.38%	79.31%	80.33%	75.05%
Selling, General & Administrative	$ 1,827,000	$ 1,940,956	$ 2,278,894	$ 2,372,057	$ 2,542,027	$ 2,730,599	$ 2,852,917	$ 3,023,927	$ 3,155,725	$ 3,281,764	$ 3,532,636	$ 29,538,502
% of Sales	32.63%	31.36%	32.95%	30.63%	29.24%	28.07%	26.12%	24.65%	22.82%	21.21%	20.49%	25.78%
Research & Development	$ 291,200	$ 670,520	$ 735,458	$ 695,254	$ 716,887	$ 739,930	$ 825,141	$ 884,054	$ 920,776	$ 1,006,905	$ 1,000,807	$ 8,486,932
% of Sales	5.20%	10.84%	10.63%	8.98%	8.25%	7.61%	7.56%	7.21%	6.66%	6.51%	5.80%	7.41%
Operational Expenditures	**$ 2,118,200**	**$ 2,611,476**	**$ 3,014,352**	**$ 3,067,311**	**$ 3,258,915**	**$ 3,470,529**	**$ 3,678,058**	**$ 3,907,981**	**$ 4,076,502**	**$ 4,288,668**	**$ 4,533,443**	**$ 38,025,434**
% of Sales	37.83%	42.20%	43.58%	39.61%	37.49%	35.68%	33.68%	31.85%	29.48%	27.72%	26.29%	33.18%
Other Income & Expense	$ 112,560	$ 97,167	$ 116,598	$ 139,042	$ 124,290	$ 113,775	$ 123,604	$ 131,630	$ 190,047	$ 192,511	$ 199,097	$ 1,540,320
% of Sales	2.01%	1.63%	1.78%	2.00%	1.68%	1.45%	1.48%	1.48%	2.00%	1.91%	1.87%	1.34%
Income Before Tax	**$ 1,638,840**	**$ 1,537,949**	**$ 1,635,259**	**$ 2,218,978**	**$ 2,880,866**	**$ 3,559,577**	**$ 4,339,886**	**$ 5,292,788**	**$ 6,431,575**	**$ 7,789,963**	**$ 9,120,031**	**$ 46,445,713**
% of Sales	29.27%	24.85%	23.64%	28.66%	33.14%	36.60%	39.74%	43.14%	46.52%	50.35%	52.89%	40.53%
Tax	$ 393,322	$ 369,108	$ 392,462	$ 532,555	$ 691,408	$ 854,299	$ 1,041,573	$ 1,270,269	$ 1,543,578	$ 1,869,591	$ 2,188,807	$ 11,146,971
Effective Tax Rate	24.0%	24.0%	24.0%	24.0%	24.0%	24.0%	24.0%	24.0%	24.0%	24.0%	24.0%	24.0%
Net Income	**$ 1,245,518**	**$ 1,168,842**	**$ 1,242,797**	**$ 1,686,423**	**$ 2,189,458**	**$ 2,705,279**	**$ 3,298,313**	**$ 4,022,519**	**$ 4,887,997**	**$ 5,920,372**	**$ 6,931,224**	**$ 35,298,742**
% of Sales	22.24%	18.89%	17.97%	21.78%	25.19%	27.81%	30.20%	32.79%	35.35%	38.27%	40.20%	30.80%

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Net Income / (Loss)	$ 1,245,518	$ 1,168,842	$ 1,242,797	$ 1,686,423	$ 2,189,458	$ 2,705,279	$ 3,298,313	$ 4,022,519	$ 4,887,997	$ 5,920,372	$ 6,931,224	$ 35,298,742
Capital Expenditures	$ 536,290	$ 204,547.28	$ 217,489.47	$ 252,963.51	$ 372,207.93	$ 432,844.58	$ 461,763.84	$ 603,377.87	$ 684,319.53	$ 888,055.83	$ 1,178,308.03	$ 5,832,168
Amortization / Depreciation	$ 144,552	$ 136,884	$ 169,136	$ 239,235	$ 217,051	$ 290,528	$ 217,899	$ 422,252	$ 508,800	$ 789,648	$ 643,810	$ 3,779,795
Working Capital												
Accounts Receivable	$ (286,469)	$ (268,834)	$ (285,843)	$ (354,149)	$ (459,786)	$ (595,161)	$ (824,578)	$ (965,405)	$ (1,124,239)	$ (1,243,278)	$ (1,455,557)	$ (7,863,300)
Inventory	$ (361,200)	$ (338,964)	$ (360,411)	$ (489,063)	$ (547,365)	$ (757,478)	$ (923,528)	$ (965,405)	$ (1,173,119)	$ (1,361,686)	$ (1,594,181)	$ (8,872,399)
Accounts Payable	$ 199,283	$ 187,015	$ 211,275	$ 269,828	$ 328,419	$ 432,845	$ 527,730	$ 643,603	$ 733,199	$ 1,006,463	$ 1,178,308	$ 5,717,968
Total Working Capital	$ (448,387)	$ (420,783)	$ (434,979)	$ (573,384)	$ (678,732)	$ (919,795)	$ (1,220,376)	$ (1,287,206)	$ (1,564,159)	$ (1,598,500)	$ (1,871,430)	$ (11,017,731)
Change in Working Capital	$ (98,387)	$ 27,604	$ (14,196)	$ (138,405)	$ (105,348)	$ (241,063)	$ (300,581)	$ (66,830)	$ (276,953)	$ (34,342)	$ (272,930)	$ (1,521,430)
Free Cash Flow	**$ 952,167**	**$ 1,073,575**	**$ 1,208,639**	**$ 1,811,100**	**$ 2,139,650**	**$ 2,804,025**	**$ 3,355,029**	**$ 3,908,223**	**$ 4,989,430**	**$ 5,856,306**	**$ 6,669,656**	**$ 34,767,799**
Discount Rate	7%											
Discounted Cash Flow	**$ 952,167**	**$ 1,003,341**	**$ 1,055,672**	**$ 1,478,397**	**$ 1,632,329**	**$ 1,999,231**	**$ 2,235,598**	**$ 2,433,845**	**$ 2,903,893**	**$ 3,185,443**	**$ 3,390,515**	**$ 22,270,430**

Appendix | Financial Highlights

Highlights		
Financials	**Average**	**Cumulative**
Net Sales	$ 10,418,101	$ 114,599,109
Gross Profit	$ 7,819,224	$ 86,011,468
% NTS	*74%*	*75%*
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% NTS	*28%*	*31%*

Market Assumptions	
Market Growth	**7.5%**

Market Share Metrics	
Beginning Share	**56.4%**
Ending Share	**84.2%**
Peak Share	**84.2%**
Average Share	**69.1%**

Value Creation Metrics	
NPV	**22,270,430**

Selected Decision Points	
Decision Point	**Decision**
R&D Strategy:	***Symmetrical: IP, Spiral: Internal***
Symmetrical	IP
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