

New Design vs. Extending Existing Product Lifetime

*Assess whether your organization could benefit from revising an existing product design or developing a new one. **Here's a quick checklist to get you started:***

Market Analysis

- ☐ Is there a significant unmet medical need?
- ☐ How saturated is the current market?
- ☐ What's the competitive landscape?

Technological Factors

- ☐ Are there recent technological advancements in the field?
- ☐ Can existing technology adequately address current needs?
- ☐ Is there potential for breakthrough innovation?

Financial Considerations

- ☐ What's our R&D budget?
- ☐ Can we afford the costs of developing a new product?
- ☐ What's the potential return on investment for each option?

Regulatory Environment

- ☐ How complex is the approval process for a new design?
- ☐ Are there regulatory advantages to modifying an existing product?
- ☐ Are there upcoming regulatory changes that could impact development?

Intellectual Property

- ☐ Is there potential for new patents with a novel design?
- ☐ How strong is our current IP portfolio?
- ☐ Are there opportunities to extend existing patents?

Manufacturing Capabilities

- ☐ Can our current facilities handle a new product design?
- ☐ Would extending an existing product require significant retooling?
- ☐ What's our capacity for scaling production?

Time to Market

- ☐ How urgent is the need for the product?
- ☐ Can we afford a longer development timeline?
- ☐ Are competitors close to launching similar products?

User Adoption

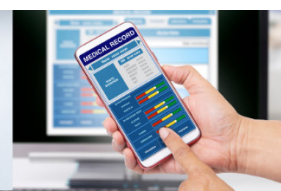
- ☐ How receptive are healthcare providers to new technologies?
- ☐ Is there a learning curve associated with a potential new design?
- ☐ How satisfied are users with our existing products?

Company Strategy

- ☐ Does a new design align with our long-term goals?
- ☐ Does extending existing products fit into your product lifecycle management?
- ☐ What's our risk tolerance for new ventures?

Patient Impact

- ☐ Would a new design significantly improve patient outcomes?
- ☐ Can incremental product improvements sufficiently benefit patients?
- ☐ Are there safety considerations favoring one approach over the other?





Guidance for effectively using the checklist in a medical product design or life extension capacity:

- 1. Assemble a cross-functional team:** Involve representatives from R&D, marketing, regulatory affairs, manufacturing, and finance. This ensures a comprehensive evaluation from multiple perspectives.
- 2. Weight the factors:** Not all checklist items are equally important. Assign weights to each factor based on your company's priorities and the specific product category.
- 3. Use a scoring system:** For each checklist item, use a scale (e.g., 1-5) to quantify how strongly it favors new design or life extension. This allows for more nuanced decision-making.
- 4. Gather data:** Collect market research, competitor analysis, and internal data to inform your responses.
- 5. Consider timeframes:** Evaluate both short-term and long-term implications of each option. Some factors may have different impacts over time.
- 6. Regulatory landscape analysis:** Consider the regulatory environment. Consult with regulatory experts to understand the full implications of each path.
- 7. Patient-centric approach:** Always keep patient outcomes at the forefront. Consider conducting focus groups or surveys with healthcare providers and patients.
- 8. Financial modeling:** Develop detailed financial projections for both options, including development costs, time to market, and potential revenue streams.
- 9. Risk assessment:** Conduct a thorough risk analysis for each option, considering technical, market, and regulatory risks.
- 10. Iterative process:** Use the checklist as a living document. Revisit and update it as new information becomes available or circumstances change.
- 11. Scenario planning:** Develop multiple scenarios for each option to account for various outcomes and market conditions.
- 12. Seek external input:** Consider consulting with industry experts or advisors to gain outside perspective and challenge internal assumptions.
- 13. Document the process:** Keep detailed records of your decision-making process. This can be valuable for future projects and for justifying decisions to stakeholders.
- 14. Set decision criteria:** Establish clear criteria for what constitutes a decision to pursue new design vs. life extension. This might include threshold scores or other key determining factors.
- 15. Plan for both outcomes:** While going through the checklist, start preliminary planning for both options. This can identify unforeseen challenges or opportunities.

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