

Collaborative Innovation: Practical Ways to Bring Products to Market Faster

A step ahead: The competitive difference of an innovation center model

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Accelerated product development

- Customers are looking for partners to help them reduce time to market
- Dedicated team and equipment



Goals of the Innovation Center

- Increase speed to market
- Lower costs
- Access to experts



Speed to market

- 24-48 hour turnaround on quotes
- Adaptable process
 - Fail fast
 - Production intent tooling
- Planning ahead
 - Design changes, process development, inspection, volume production
- Speed is based on part complexity and goals of the project
 - Silicone/rubber vs thermoplastic



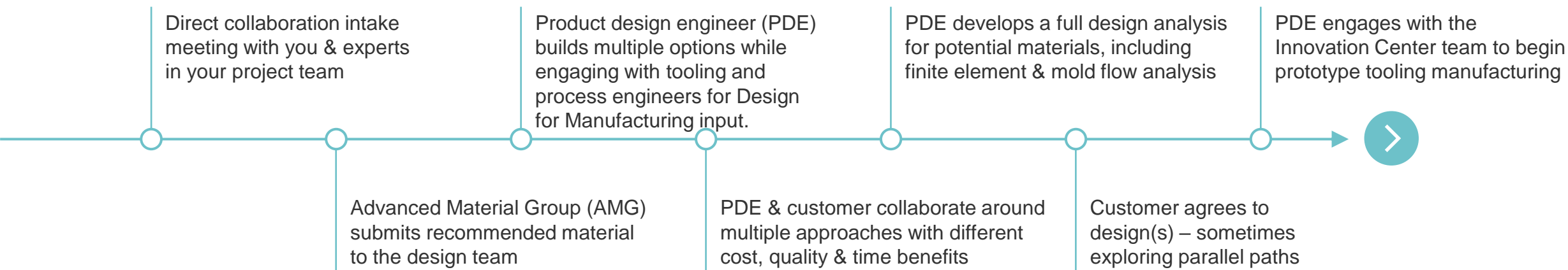
Lower Costs

- 80-90% of cost is designed into the component
- Simple changes with large impact
 - Little to no compromise on product performance
- Early involvement
 - **Product design**
 - **Design for Manufacturability (DFM)**
 - Material selection



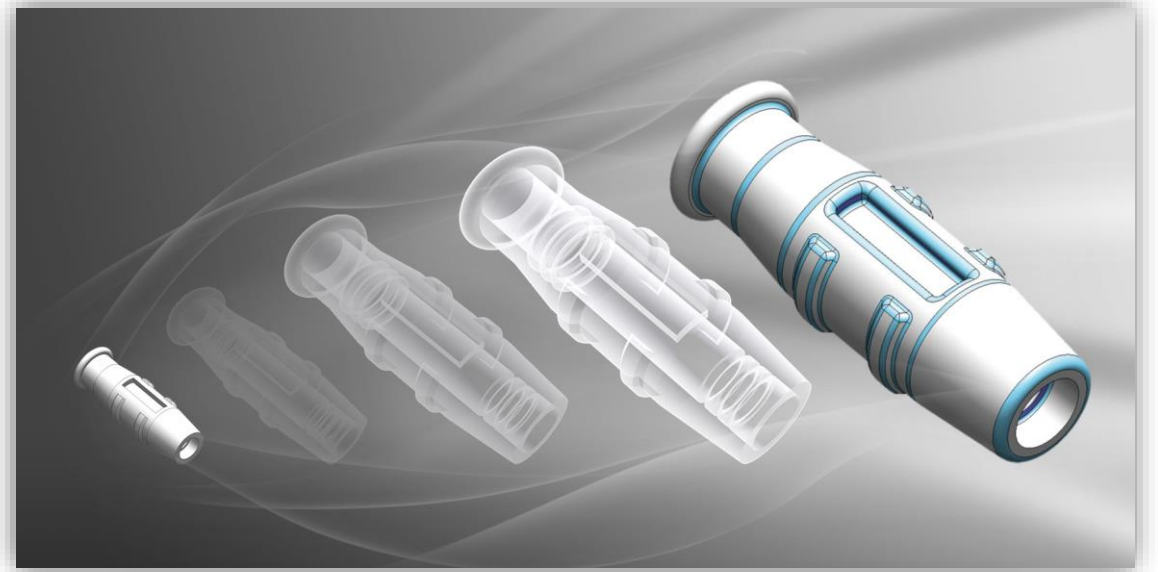
Design Engineering Team

Here’s a simplified look at our typical product design process:



Design for Manufacturability (DFM)

- Meet with your team to gain an understanding of the product
 - Function, critical features, mating components
- Provide feedback and potential design changes to aid in manufacturability
 - Sharp corners, draft, wall sections, parting line, gate location
- Mold flow capability
 - Allows us to quickly test filling and molding process to identify any potential issues before cutting steel



Access to experts

- Product design
 - Experts on seal design
 - FEA
 - Mold Flow Capability
- Design for Manufacturability (DFM)
- Material Selection
- Tooling & Machining
- Injection molding
 - Thermoset elastomers, silicone and thermoplastics
- Silicone Extrusion
- Integrated Solutions (Assemblies)
- Quality





Cost effective approach

- Partnership
 - Having one partner from start to finish can have significant benefits
 - Lessons learned are clearly communicated between internal teams from prototype to production
- Work together to drive out as much cost as possible while maintaining product function
 - DFM
 - Material selection
- In-house tooling
- Working towards the long-term goal of production manufacturing

Recap

Vertical Integration



Connected design, prototyping and manufacturing drives superior outcomes for your products.

Unmatched Expertise



Engage us early, and together, we'll reduce rework and build superior component or assembly that delivers the best end results.

Innovative NPD Process



Our NPD process delivers optimal product designs, while lowering costs and improving speed to market.

Smarter Manufacturing



Our advanced mold flow analysis (MFA) services optimize manufacturing of elastomers or thermoplastics.

Rapid Prototyping



Quickly fabricate a prototype or production-intent part or assembly, and scale quality production once you're ready to bring the product to market.

Experience It All



Welcome to the Innovation Center where you can collaborate with our experts and participate in the entire design and prototype process under one roof.