

KASO Plastics understands your project may require more than injection molding. Our experienced engineers will help guide your project—providing advice and adjusting as needed—while our value added secondary services help reduce costs and shorten lead times.

Finding Competitive Advantage with Early Supplier Involvement

The path that connects your products to your customers can be a tricky road to travel.

Factors like mounting outside pressure in a global marketplace, increasing price competition with simultaneous emphasis on the quality of finished products, and new technology making production more complex than ever can place a substantial burden on the shoulders of product designers and manufacturers alike.

How can your products compete in this challenging environment?

Increasing competition means companies must begin very early in the product development process to look for ways to increase production efficiency without sacrificing costs or quality. As a result of this global pressure on manufacturing we've even seen some companies respond with an increased willingness to outsource product design in order to gain advantages by working with outside suppliers that maintain robust engineering capabilities.

The Challenge



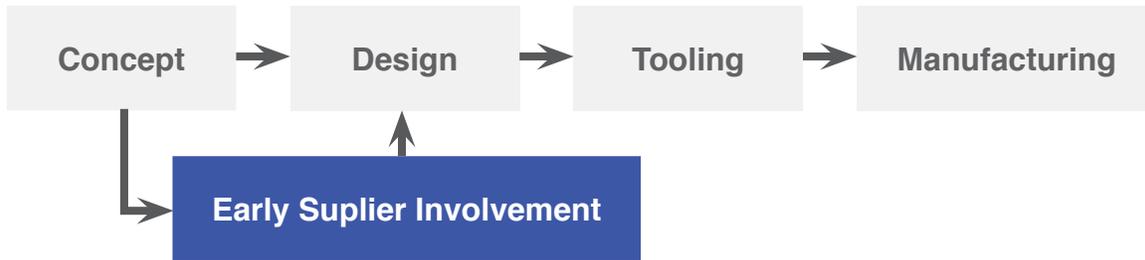
When it comes to introducing new products, manufacturing pitfalls can take a brilliant product design and turn it upside down in a flash, sacrificing a product's finished quality or in some cases drastically increasing the amount of time (and money) necessary to manufacture.

These pitfalls can be found in every aspect of the product development process, from product design to manufacturing and even materials selection.

Design constraints that are not addressed in the early stages of development can create significant problems downstream. In the latter stages of product development, it's often too late to make adjustments without sacrificing product quality or throwing production schedules out the window. The costs associated with these late term changes add up very quickly.

Early Supplier Involvement

One solution to ensuring a competitive advantage over competition is Early Supplier Involvement, a process that brings you and your supplier's team together early in the product development process with the end goal of getting your products to market as quickly as possible with the highest quality and lowest costs.



This process generally takes the form of a series of meetings that provide you and your supplier both an opportunity to communicate crucial information about the product and your respective capabilities.

Customer	Supplier
<ul style="list-style-type: none"> • Goals for new products • Share your expertise • Timeline for success 	<ul style="list-style-type: none"> • Understand product design • Provide suggestions • Optimize for production

Product designs not optimized for production run the very real risk of having an unstable production process, unstable part dimensions and/or part variability that may well lead to poor overall quality or--what's more likely--expensive retooling.

What's Needed for Early Supplier Involvement

The good news is that you can join forces with your manufacturing partner almost as soon as inspiration strikes. All that's needed to get started is a CAD Model or even a product design sketch. Your supplier can work with you to take these initial concepts all the way through final production.

The Three Critical Factors Addressed During Early Supplier Involvement



Design for Manufacturing

Designing products that are easier to manufacture assures a stable production process that produces high quality product at the lowest possible cost. Design for Manufacturing will assure manufacturability issues are corrected prior to the production, at which point these changes become much more expensive if not identified earlier.

Design Complexity

During Early Supplier Involvement meetings, you will work together with your supplier to remove any unnecessary design elements. This cuts down on the number of design iterations needed to get your product into production. This also reduces the risk of designing products that are too complex and therefore too expensive to produce.



This process can be quite different depending on the company, so it's important to know the depth of involvement your supplier is willing to undertake. Not all suppliers are the same. Some may be willing to go the extra mile with you, even working on-site with you to ensure product designs are 100% ready for production.



Materials

Finding the right material for the job is imperative to your new product's success. During ESI, your supplier can review all possible material options with you, and can suggest substitutions that can reduce costs, improve product quality, or sometimes both.

The ESI process can benefit everyone, even those with deep engineering and design experience. Others may require additional education and assistance to ensure successful production. Either way, choosing a knowledgeable supplier and engaging them early in the product development process can provide you with tangible benefits in product quality, reduced manufacturing cost, and time to market.

During Early Supplier Involvement, product designers will get the chance to utilize their supplier's internal engineering resources to review and offer helpful suggestions to important design attributes, including but not limited to:

- Product requirements
- Product life cycle
- Design intent
- Production requirements
- Needed changes and resources required

Example

A year ago, a KASO Plastics customer came to us with a product design file for a new injection molded controller. The only problem? The current design was virtually un-moldable. Luckily, the customer's design team engaged KASO's engineering team from very early in the product development process. After a series of meetings and a full product design review, the two teams were able to work together (leveraging both teams' internal capabilities) to complete a series of design iterations that have resulted in an easy-to-manufacture, high quality product.

By engaging with KASO's staff from the beginning of product design, this customer saved itself considerable time costs for a product that was going to require significant changes at some point between initial concept and final production.

Conclusion

Early Supplier Involvement is an excellent tool that will improve your product development cycle. By utilizing a supplier's internal resources, quality products can be produced with a much shorter development cycle. Design constraints can be corrected long before tooling begins, saving considerable time and money and avoiding costly delays in production.

The Early Supplier Involvement process ensures input from all stakeholders to improve the overall product development process and offers new opportunities for a competitive advantage in the global marketplace.