



# SYSTEMS ENGINEERING



## ALIGNING PRODUCT DEVELOPMENT WITH CUSTOMER NEEDS AND QUALITY GOALS

Today's products are complex, interconnected systems. This complexity can negatively impact schedules, quality, and customer satisfaction. Our experienced systems engineers build on the strength of your product development teams to help ensure you have complete and accurate requirements, a sound architectural design, and a verification plan to demonstrate requirements compliance. By engaging our experts, you will be able to identify areas of design risk and opportunities for cost avoidance before your products go into production.

Our approach will increase your odds of regulatory certification by tying compliance requirements to product design features, and will enable you to support your products long after deployment. We work with you to adopt the tools, techniques, and processes you need for more efficient development so that you can deliver high-quality products on time and within budget.

### BASE2 ADVANTAGES

**Extensive industry expertise.** Our highly qualified systems engineers have decades of experience in applying systems engineering principles to mission-critical projects in highly regulated industries such as aerospace, medical devices, and transportation. We apply the best practices and techniques from these deployments to improve your product development outcomes.

**Collaborative, whole-business mindset.** We focus on bringing products to market using inter-professional, multi-disciplinary teams to improve your product development from beginning to end. This culture promotes an understanding of the voice of the customer, why products are being built, who's going to use them and what interfaces are needed.

**Focus on customer needs and quality.** We keep customer needs and quality front and center as we work with your teams to improve your products and development systems and processes. Our approach is focused on ensuring that what you build matches what your customers need, with the quality required for regulatory compliance and customer satisfaction.

### CUSTOMER SUCCESSES

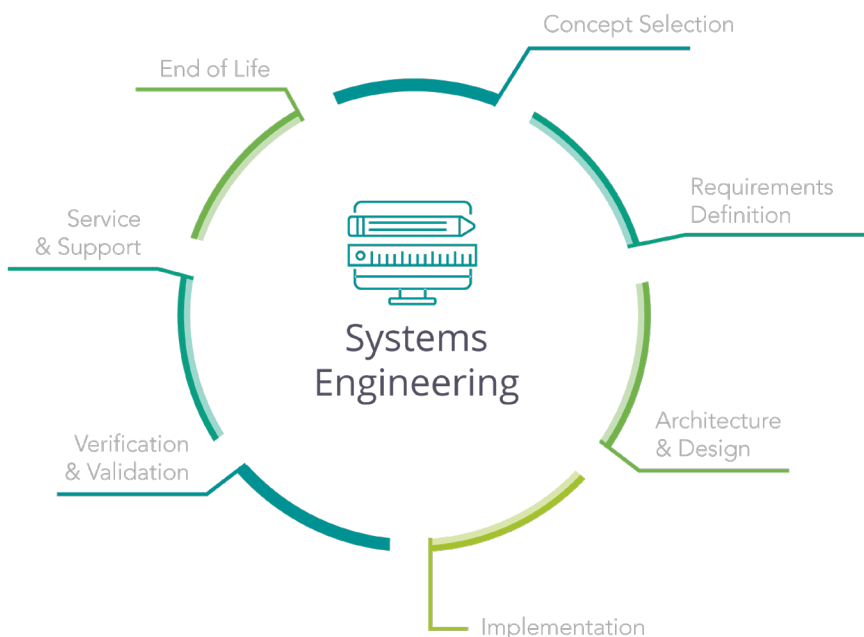
With our systems engineering expertise, we've delivered measurable business benefit to our clients:

- > Reduced manufacturing cycle time by 4 weeks
- > Led production efficiency projects that reduced program cost by \$95M in two years
- > Supported FAA Type Certification
- > Reduced customer product delivery rework by 72%

## WHERE WE CAN HELP

Our talented systems engineers deliver end-to-end expertise to optimize and accelerate your product development processes, while helping you embrace Digital Innovation for a competitive edge. We work closely with your team through all stages of the systems engineering process to:

- > Translate your market needs, voice of the customer, and other inputs into the concept that will drive the development process
- > Define and analyze the requirements, risks, and alternatives, and develop a product roadmap
- > Establish a system architecture and design with an eye towards embracing Digital Innovation for speed, agility, and quality
- > Develop the system and integrate it with larger systems or ancillary systems as necessary
- > Verify and validate the system with a focus on quality, security, reliability, and interoperability
- > Provide service and support as the system is transitioned to production, including plans for product improvements and new technologies
- > Establish plans for system sunset



## AREAS OF EXPERTISE

Market Analysis  
 Product Roadmap/Preplanned Product Improvement (P3I)  
 Concept Selection / Trade Studies  
 Certification  
 Requirements Definition/Analysis/Allocation  
 System Architecture Development  
 Model Based Systems Engineering (MBSE)  
 System Integration, Verification, & Validation  
 Program/Project Management  
 Risk, Issue, Opportunity Management  
 Configuration Management (CM)  
 Cross-Functional Team Leadership  
 Program Recovery  
 Corrective and Preventive Action (CAPA)  
 Reliability, Maintainability, Availability (RMA)  
 Life Cycle Costing (LCC)  
 Operations Evaluation/Reengineering  
 Training