

AMTI-ES Product Development Process

A brief description of our 5-phase approach to bringing products to market quickly is presented here.

Overview of our Approach

We have a five-phase product development approach. We can provide services throughout the entire process, or enter at any point depending on the development status.

- ◆ Phase I – Product Definition
- ◆ Phase II – Functional Prototype
- ◆ Phase III – Engineering Prototype
- ◆ Phase IV – Manufacturing Prototype
- ◆ Phase V – Commercialization

FUNCTIONAL PROTOTYPE

- ✓Technology R&D
- ✓Preliminary Design
- ✓Proof-of-Concept Prototype
- ✓Laboratory Verification

PRODUCTION PROTOTYPE

- ✓Manufacturing Assessment
- ✓Design for Manufacturing
- ✓Manufacturing Prototype

PHASE 1

PHASE 2

PHASE 3

PHASE 4

PHASE 5

PRODUCT DEFINITION

- ✓Customer Needs
- ✓Benchmark Competition
- ✓Concept Generation

ENGINEERING PROTOTYPE

- ✓Engineering Refinement
- ✓Product Integration
- ✓Design Field Test Prototype
- ✓Field Testing

COMMERCIALIZATION

- ✓Certification and Reliability Validation
- ✓Transition to Manufacturing
- ✓Product Support

AMTI-ES Product Development Process

Phase I – Product Definition

- ◆ Identify customer needs
- ◆ Benchmark competing products
- ◆ Develop conceptual ideas for the product
- ◆ Analyze and screen the concepts
- ◆ Recommend an action plan to the client

Phase II – Functional Prototype

- ◆ Undertake background R&D on the new product technology
- ◆ Complete a preliminary design
- ◆ Construct a proof-of-concept prototype
- ◆ Laboratory evaluations

Phase III – Engineering Prototype

- ◆ Refine the design
- ◆ Integrate all aspects of the product
- ◆ Complete the next-generation prototype construction
- ◆ Laboratory and field testing
- ◆ Manufacturing review

Phase IV – Production Prototype

- ◆ Refine and finalize the product design
- ◆ Review assembly and test procedures with manufacturing
- ◆ Complete design for manufacturing (DFM) study
- ◆ Construct the final prototype

Phase V - Commercialization

- ◆ Certification and reliability validation
- ◆ Transition to manufacturing
- ◆ Integration with current products
- ◆ Product support