

# ***INSPIRED INNOVATIONS, L.L.C.***

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## **Nano-Composite Boot Camp**

- 1. Background of the Innovation**
  - a. Metals vs. Polymers**
  - b. Advantages of Polymers**
  - c. Impact vs. Modulus**
- 2. Nano-Fillers**
  - a. Background and Types of Particles**
  - b. Economics (High Volume, Commercial Focus)**
  - c. Preparation**
  - d. Preferred Form**
  - e. Dispersion Methods**
- 3. Nano-Composite Polymers**
  - a. Thermoplastics and Performance**
  - b. Thermosets and Performance**
  - c. Practical Benefits**
  - d. Processing Methods**
  - e. Relative Economics of Molding Processes**
- 4. Material & Process Displacement**
  - a. Engineering Thermoplastics**
  - b. Nano-Composite Polyolefins**
  - c. Nano-Composite TPO**
  - d. Metal Replacement**
  - e. Glass Replacement**

## **5. First Adopter Benefits**

- a. Immediate Applications – Type I TP**
- b. Immediate Applications – Type I TS**
- c. Immediate Applications Type II TP/TS**
- d. Second Stage Applications**
- e. Breakthrough Applications**
- f. Applications in Various Industries**
  - Automotive**
  - Packaging**
  - Construction**
  - Major Appliances**
  - Medical**