1. **Define Problem**

**Y**

**N**

**Y**

**Scientific Research Needed**

**N**

**N**

**Y**

**N**

**N**

**Solution Solves Problem?**

**Y**

**Is Prototype Valid?**

**Y**

**Is Solution Valid?**

1. **Evaluate Solution**
2. **Present Solution**

**Product Innovation**

**Problem**

**Valid and**

**Justifiable?**

1. **Generate Concepts**

**Needed Technology Exists?**

1. **Develop a Solution**
2. **Construct and Test Prototype**