

Gary Dailey

Vice President, Global Marketing -  
Electronic Materials

Avantor Performance Materials

[gary.dailey@avantormaterials.com](mailto:gary.dailey@avantormaterials.com)



# Challenges Facing Formulated Cleans

## Technical Challenges

- Device Complexity
- Increased Purity Requirements
- Formulation Complexity
- Speed to Ramp

## Commercial Challenges

- Product customization
- Post ramp support
- Supply Chain Management
- Economics are challenging future investments



# Collaboration Is the Key

- Chemistry can get us where we need to go
- Collaboration is the clear path to success
- Need to consider the differing needs of:
  - Device Manufacturer
  - Formulator
  - Tool Manufacturer

