The Future of Formulated Cleans Panel Discussion

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Challenges facing formulated cleans

1. Getting closer to each other
   • OEMs/IDMs
   • RMs (raw materials) suppliers
   • Academia/Consortia

2. Adding values
   • vs. high purity bulk solvents/acids
   • vs. less environmentally-benign products
   • Integrated offerings
Our approaches

Getting closer to partners/customers
Global infrastructure/Local support
Our approaches (continued)

Adding values
Integrated Offerings

**Air Products Electronic Materials Division:**
The Materials Partner of Choice of the Semiconductor Industry

- Focus on Semiconductor (IC) Materials where materials provide low-cost in use/high value in use
- Leverage technology leadership, global scale, quality and reliability capabilities, and partnership with customers and OEMs to develop and commercialize the next generation technologies which will advance the industry
- Expand into adjacent segments within IC
Our approaches (continued)

Adding values
Integrated Offerings

ICs cleans (Al/Cu)

Silicon wafer

Silicon chip

Print wiring board

Semiconductor package

Packaging cleans

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