ECTC Panel Participation
“CHIPS ACT Implications”

• Richard F. Otte
• Promex Industries Inc.
• May 30, 2023
Where do firms, like us, find the other 2/3 of the $?
“Other” Funding Sources

• Operating Funds
• Loans against Company Assets
• Industrial Partners
• Local Government. Especially States
• Professional Investors
  • Family Offices
  • Some Private Equity
Who will the customers be for US based Packaging services?
Two Separate Needs

• More Than Moore Concept
  • Smaller nodes
  • Added functionality

• Smaller Nodes Need Advanced Packaging
  • Highest density devices to maximize performance
    • Chiplets
    • Silicon Interposers 2 micron lines & spaces

• Added Functionality Needs mostly Mainstream Packaging
  • Heterogeneous Integration
    • More than Silicon on wafer
    • Unique, non-electronic parts
  • Standard Packages
    • BGA, QFN, etc
What Can be Done to Invigorate On-Shore Packaging?

• The Barriers:
  • Limited on-shore capability
  • Higher on-shore volume Costs

• The Benefits:
  • Turn time
  • Able to Visit, Communication, learn
  • Alternate Source
  • Confidentiality

• Consider On-Shore Carefully
Overcoming On-shore Assembly Barriers

• Focus Investment on the Emerging and Next Generations of Packaging
• Establish and Demonstrate on shore capability
  • Develop Better Technologies
  • Build Pilot Lines
  • Demonstrate Capability & Performance
  • Then Establish Relationships and then Price

• Where is the need & demand?
  • Heterogeneous Integration
  • Advanced Packages
  • Chiplet Package Assembly