High Profile SEMI Standards

- Over 800 Standards in SEMI's Portfolio
- Wafer Dimensions
- Metrics
  - Factory efficiency, equipment reliability, and availability
- Equipment Interface
  - SEMI Equipment Communication Standards (SECS)
  - Generic Equipment Model (GEM)
- Environmental, Health and Safety
  - Safety for semiconductor (S2) and FPD (S26)
  - Energy conservation (S23)
- 300 mm, 450 mm
  - Automated Material Handling Systems
- Photovoltaic
  - Materials, equipment communications
- Anti-counterfeiting / Product Authentication

SEMI Standards Activities in 3D IC

- *SEMI and SEMATECH Present:* 3D Interconnect Challenges and Need for Standards Workshop
  - San Francisco Marriott Marquis
  - July 13, 2010: 1:00pm–5:00pm
- Goals:
  - Technical exchange
  - Constructive discussion and problem solving
  - Identification of one or several areas of standardization
  - Identify participants willing to provide guidance and support with the development of new standards.

3D IC / TSV at SEMICON West

- ASMC 2010 (At SEMICON West)
  - Keynote: Matt Nowak, Qualcomm
  - "High Density 3D Through Silicon Stacking – Manufacturing Readiness and Challenges"
- Sessions on Show Floor:
  - Packaging
    - "Bridging the Gap"
    - "Diving into Deep Submicron- Swimming the Channel"
  - 3D-IC Co-Design Challenges:
    - "How to Speed 3DIC Deployment"
- Workshops
  - IMAPS/SEMI: Advanced Interconnect Technology
  - SEMATECH: 3D Interconnect Metrology
  - SEMI/SEMATECH 3D Interconnect Challenges and Need for Standards

Why use a Global Standards Development Organization (SDO)?

- Anyone can participate
- Achieve true global consensus and acceptance
- Improve supply chain communication
- Results
  - Cost reduction
  - Focus on product differentiation
  - Acceleration of product development
  - Accepted verification procedures (test methods)
  - Influence direction of industry