

# CAST Scope and Objectives



Don Edinfeld

CAST Steering Committee

April 1, 2009

# Agenda

---

- Vision
- Background and History
- Organization Structure
- Charter
- 2009 Objectives

# Vision

---

- A single, inclusive, active community of industry leaders to engage a dialog on key challenges, influence strategy and drive toward common solutions to common problems while fostering innovation and differentiation

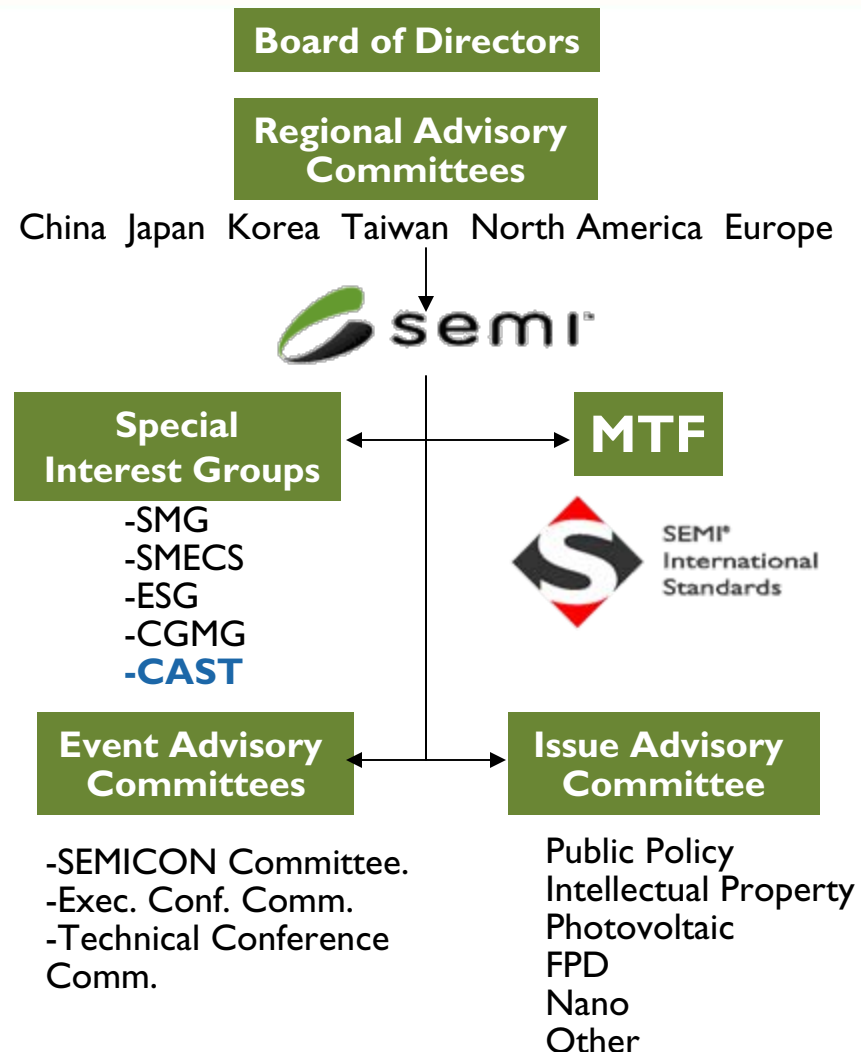
# Background and History

---

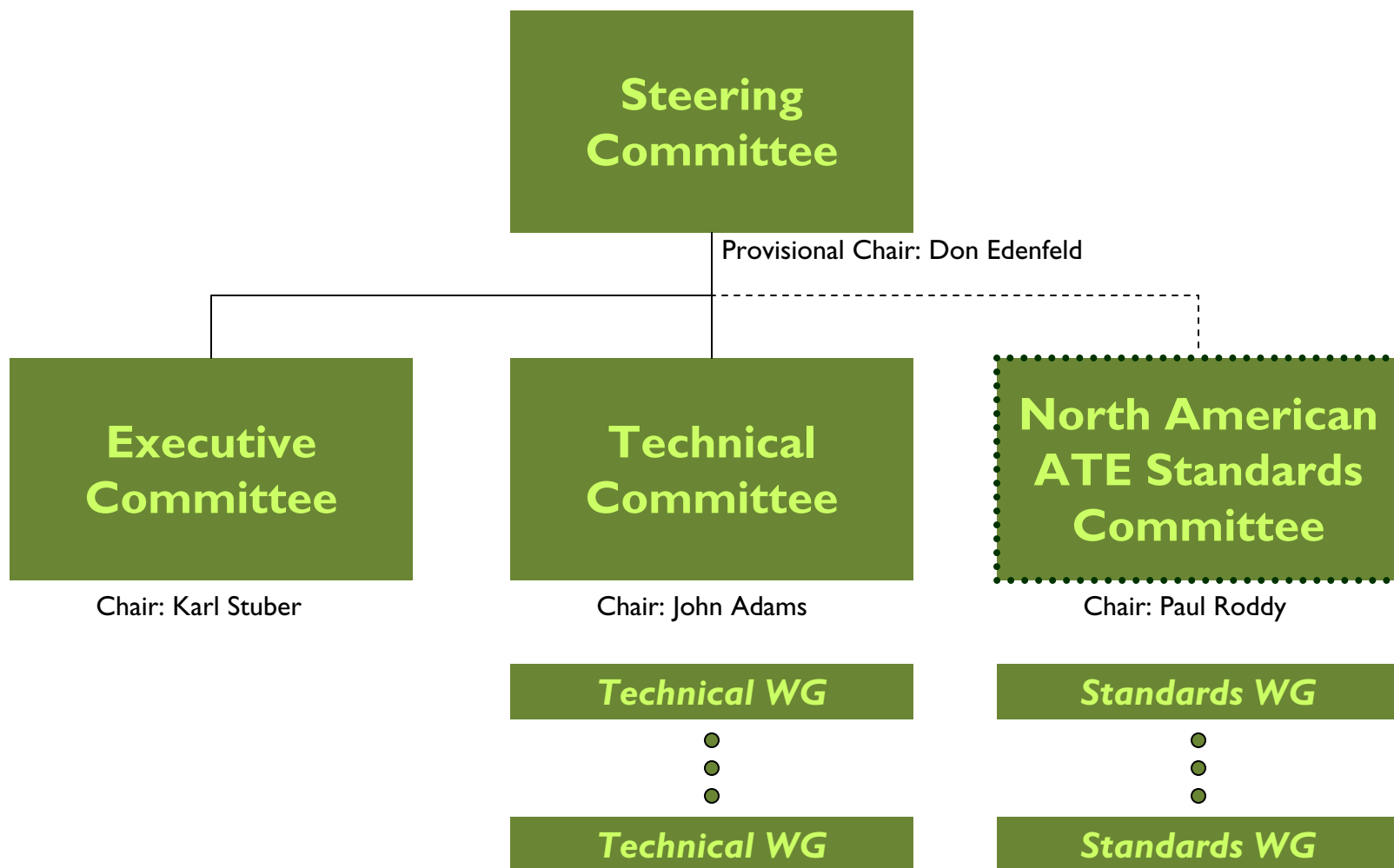
- Began as a group of supporters at Semicon West in July 2008 seeking a common forum and level playing field for collaboration
- Aligned expectations through development of a charter document in Q3'2008
- Sought industry support and announced intentions in October 2008 (ITC) to form an organization
- Launched in February 2009 as a Special Interest Group within SEMI

# Organization Structure

- CAST SIG acts as a steering organization for industry efforts in test
- NA Region ATE Standards Committee formation pending ISC vote
  - Compliments existing committees in Europe and Asia
  - Will host formal standards efforts



# CAST Structure



# Charter

---

- **Foster pre-competitive collaboration**
  - Eliminate barriers to participation, enabling a broad membership and level playing field inclusive of all semiconductor industry participants with emphasis on manufacturing process cost, efficiency and yield beginning with wafer test and ending with shipment to the customer
- **Research, develop and promote standards that enable industry productivity improvement**
  - Resource and drive specifications to enable efficient and effective interoperability while fostering an environment that encourages fast development, deployment and usage of specifications or standards

# Charter

---

- Perform pre-competitive benchmarks
  - Quantifying end-user process efficiency and effectiveness, and identifying opportunities to improve end-user process efficiency via collaborative efforts
- Act as a representative and an advocate for the members
  - Focus on fostering a better understanding of their strategic value to the semiconductor industry; targets will include the industry, universities, governments and other organizations

# 2009 Objectives

- Foster pre-competitive collaboration
  - Maintain an open and inclusive stance toward membership, enable non-member participation while protecting the voting rights of members
  - Stay visible to the industry, communicate our efforts
- Research, develop and promote standards that enable industry productivity improvement
  - Establish Technical Committee and leadership to recommend and drive the organization technical agenda
  - Review existing industry efforts and identify new areas of opportunity, define clear scope and objectives for each Working Group and / or Standards Group.
  - Re-establish the SEMI NA TAP Standards Committee to host and drive the standards process for CAST based initiatives in cooperation with standards committees from the other regions worldwide

# 2009 Objectives

- Perform pre-competitive benchmarks
  - Establish an efficiency baseline using new or established efficiency metrics
  - Limited initial scope to refine the process of data collection, analysis and reporting
  - Use results to drive improvement opportunities and integrate with technical agenda
- Act as a representative and an advocate for the members
  - Formulate the message of test value add in the industry and drive an information agenda
  - Sponsor the Semicon West Test Day event to encourage discussion and debate about the current state and future of the industry
  - Interface with academia to drive a closer working relationship with industry and assist in government lobbying for research funding



# Questions?

# Backup



# Charter

- Foster pre-competitive collaboration
  - Eliminate barriers to participation, enabling a broad membership and level playing field inclusive of all semiconductor industry participants with emphasis on manufacturing process cost, efficiency and yield beginning with wafer test and ending with shipment to the customer.
- Research, develop and promote standards that enable industry productivity improvement:
  - Resource and drive specifications to enable efficient and effective interoperability while fostering an environment that encourages fast development, deployment and usage of specifications or standards.
    - Standards for the interface between semiconductor equipment and the various other systems, both hardware and software to which the equipment is required to interface.
    - Clearly defining the technical scope for the interface being developed,
    - Enable collaborative development of standards implementation to speed deployment and ensure compliance and compatibility.
    - Invest in and direct research of mutual benefit to evaluate potential opportunities to improve test efficacy and efficiency throughout the design, validation and manufacturing processes.
    - Ensure protection of member IP as well as timely disclosure of existing claims through a mutually agreed RAND based IP policy.

# Charter

- Perform pre-competitive benchmarks
  - Focus on: Quantifying end-user process efficiency and effectiveness, and identifying opportunities to improve end-user process efficiency via collaborative efforts.
    - Ensure full acceptance of these definitions through a collaborative definition process.
    - Utilize definitions to identify opportunities for new standards and improvements to existing standards.
    - Utilize definitions to drive continuous process improvement by utilizing the Define, Measure, Analyze, Improve, Control (DMAIC) approach.
    - Ensure the anonymity of member data through a mutually agreed policy.
- Act as a representative and an advocate for the members
  - Focus on fostering a better understanding of their strategic value to the semiconductor industry. The targets will include the industry, universities, governments and other organizations:
    - Counter the belief that test is just a cost. Change the industry mantra from reducing the cost of test to increasing the value of test.
    - Encourage universities to support programs and curricula of benefit to the test industry.
    - Encourage engineers to consider the back-end as a career choice.
    - Act as a representative of the members to governments and other organizations.
    - Sponsor symposia to share the value add of test.