



# Interagency/Stakeholder Glass Strength Workshop

## Meeting Minutes

21 January, 2010, Washington, DC

### **Attendance:**

Winthrop Baylies (BayTech Group); Wayne Boor (PPG); Charles Brossia (GMIC); John Brown (GMIC); Adrian Casas (NSG/Pilkington); Carol Click (O-I); Christine DeJong (ASTM International); Tanya Dolby (Kawner Company); Edward Etzlcorn (DOE); Joel Feingold (Strainoptics, Inc); Steve Freiman (Freiman Consulting); Michael Greenman (GMIC); Chuck Kurkjian (U.So.ME); Chien-Wei Li (DOE); Lynnette Madsen (NSF); Kirk Marchand (Protection Engineering Consultants); Louis Mattos (Coca Cola); Ron Palmer (MS State U); Carlo Pantano (Penn State U); Glenn Strahs (DOE); Doug Trenkamp (O-I); Peter Votruba-Drzal (PPG); Jonathan Williams (NSG/Pilkington);

**Facilitators:** Mauricio Justiniano (Energetics); Chris Zach (Energetics)

### **Meeting Purpose**

- Develop support for glass strength initiative to involve federal agencies, glass users, glass companies and related organizations.
- Develop outline for May 20 Workshop in Corning, NY.

### **Conclusions and Actions**

- Fundamental pre-competitive research is essential to fully understand elements related to glass strength that each company can take forward on its own to make proprietary improvements to specific glass types.
- A White Paper on research needs and opportunities would be useful to identify opportunities for agencies to react to: What is possible, why it is important, what do we need to do to get there?
- Standards will need to be developed for stronger glass, as market demand for product performance is driven by existing standards.
- Focusing on one sector to drive the market-based demand for improved strength will raise the profile of the issue for the rest of the glass industry. Container sector has shown itself to consider strength a higher priority than other sectors at this time.

## Action Items

- **Potential Workshop Titles – SST and CRT decide**
  - “Damage and how to protect against it”
  - “Glass: Stronger than steel”
  - “Opening new windows on the world of glass by increasing its usable strength”
  - “Breaking the glass barrier – the age of stronger glass”
  - “Building the next “glass strength research coalition” “
  - “Glass strength – building a research coalition”
  - “Breaking the glass ceiling on glass strength”
  - “Building strength for a global glass coalition”
  - “Saving the glass industry through strength”
  - “Building a stronger glass industry”
  - “Strengthening the glass industry”
  - “Glass strength – building a global industry, university, and government research coalition”
  
- **Prior to May 20 Workshop**
  - Executive Committee - Strategic Plan conclusions finalized
  - SST - Survey results available from companies
  - CRT - prepare abstracts for each topic area so priorities can be identified and formalized
    - Prepare brief presentation on status of field – work done, knowledge gaps
    - For each area identify 3 key areas for research with goals, brief estimate of likely impact of success, time frame, costs, PIs and coalition needs
  - SST have strawman ready describing overall benefits of strength to industry, supply chain, government agencies
  
- **Workshop Activities**
  - Possibility of several tours on May 19, prior to workshop
  - Dinner with Keynote Speaker evening of May 19
  - **May 20 Workshop** - Present Strategic Plan details
  - Present results of survey
  - CRT presentations
  - SST Strawman
  - Rank projects
  - Identify in priority order research areas to pursue,
  - Identify coalitions of glass companies, universities, stakeholders, agencies to move each forward.
  - How move forward, what’s missing?

- Suggestion for Luncheon Keynote Speaker: “Open Innovation”
  - Or “Submerged Combustion Melter” – intra-industry coalition – an example that worked.
- **Following Workshop**
  - SST develop individual white papers for each approved research need, targeted to companies and agencies.
    - One over-arching white paper on glass and importance of strength
      - Develop magazine article(s)
  - SST with GMIC officers, visit glass companies to obtain needed support
  - SST, with company representatives and university/researchers – visit government agencies to present proposals, or submit proposals during existing RFPs.