# External Needs Assessment Process

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What is the Challenge?

- Motivation: NIST requires external input to support strategic decision making
  - Earlier / broader involvement of customers / stakeholders
    - Future priorities and challenges
    - External drivers / opportunities
      - Context
  - NIST must ensure that its R&D portfolio is aligned to address the most relevant measurement challenges
- Approach: Implement a workshop / report mechanism to present priorities in the eyes of Key Customers / Stakeholders

#### Credible Identification of Stakeholder Needs

## FY10 Topics Status

- Advancing Photovoltaics (May 11–12, 2010)
  - Draft workshop summary available: http://events.energetics.com/NISTGrandChallenges2010/
  - Opportunities Document targeted for Oct 29, 2010
- Greenhouse Gas Emissions Quantification (June 2-3, 2010)
  - Draft workshop summary is available: http://events.energetics.com/NISTScripps2010/
  - Opportunities Document targeted for Nov 16, 2010
- Advanced Battery & Energy Storage Technology (Sep 1, 2010)
  - Draft workshop report targeted for late October 2010 http://events.energetics.com/NISTAdvancedBatteries/
  - Meeting with other stakeholders to get additional input

#### **Selection of Future Topics**

Currently Exploring ~ 30 topics

#### Criteria

- Potential importance to NIST
  - Administration, DOC and NIST priorities
  - Unique ability of NIST to meet demand (mission)
  - Existing evidence of importance of measurement
- Potential importance to US / World (external trends)
  - VCAT
  - Studies / reports
  - Customer input
- Potential national impact
  - Potential impact of technology

- Economic
- Level of innovation
- Expected value (accounting of risks / uncertainties)

## **Possible Future Topics**

- Forensics
- Broadband communications
- Advanced robotics
- Wind energy
- Electronic materials
- Manufacturing
- Your Ideas?



#### What's Next?

- Release *Photovoltaics Opportunities Document* (late October)
- Release GHG Emissions Quantification
  Opportunities Document (mid November)
- Release Battery and Energy Storage Technology Café Summary (late October)
- Conduct 2 large workshops and 3 small workshops during FY11

