### **Opportunities & Challenges for Research Collaboration Between Academia & Industry**

#### Panel Members

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- Introduction
- Presentations by Panel Members
  - Opportunities / Challenges / Examples
  - Clarifying Questions
- Discussion
  - Factors that Lead to Success?
  - Recover Value from Unsuccessful Collaboration?

## Factors to Success

- Right Problem
- Right Partner
  - Interest in Working Towards Problem Definition
  - Flexibility to Adapt / Develop New Approach
- Right Person(s)
  - Understanding Technology Capabilities / Limits
  - Ability to Define the Problem
  - Position of Influence

## Supporting Environment

- Industrial-Academic Consortia
- Leveraged Funding from Public Sources
  - NSF Grant Opportunities for Academic Liaison with Industry (GOALI)
  - Pennsylvania Infrastructure Technology Alliance (PITA)
- Vendor Involvement / Spin-Offs
  - Free the academic to focus on research issues
  - Free the industrial expert to focus on value creation
  - Maintain user-friendly and sustainable applications

# Opportunities

- Alignment with Objectives
  - Corporate
  - Research
- Defined Roles / Managed Expectations
  - Problem Formulation / Results Critique / Guidance
  - Theoretical Foundations / Innovation
- Sustainability
  - Knowledge Integration for Improved Solutions
  - Involvement of Academia to Propose New Opportunities

## Challenges

- Restructuring / Reduction of Central R&D
  - Loss of Network Contacts / Collaborators
  - Loss of Project Continuity / Momentum
- Intellectual Property (IP) Issues
  - Publications / Presentations for Academic Recognition
  - Patent / Proprietary Knowledge as Competitive Edge
  - University Contract Research Offices Desire IP
- Sustainability Issues with Short-term Projects
  - May Destabilize Long-term Development
  - − Dispersion of Results (Random Walk ⇔ Big Picture)