

# Outreach and Development at the APS

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Outreach and Development

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# What is Outreach and Development

- Efforts to develop strategic alliances and collaborative partnerships with
  - --- academia
  - --- industry
  - --- and the User Community



# Industrial Research at the APS

- GOAL:
- to provide all size industry access to the APS by  
  
appropriate criteria  
  
and a reasonable set of requirements.



# Characteristics of Industrial Research

- Most industries take a different view of research
- Product driven  $\leftrightarrow$  knowledge driven
- Short term  $\leftrightarrow$  open ended
- Narrowly formed questions  $\leftrightarrow$  “follow your nose”
- Competitive  $\leftrightarrow$  Pre-competitive
- **Is GUP the best way for all potential users?? (industry)**



# What to do?

- Keep GUP system intact!!! Has/is working for traditional users
- Examine how we see research.
- Avoid reducing available beamtime to any group of users.
- Understand (industrial) users expectations.
- Evaluate the requirements for (industrial) users.



# Types of Research

- Studies
  - Performed by a team of scientists
  - May involve spectrum of disciplines
  - Usually multiple institutions
  - May require more than 1 beamline/station
  - Several cycles to derive a result
  - Result is usually disseminated to public

## Measurements

- Determine a single quantity
- Single beamline/station
- Less than 3 shifts
- May require assistance to analyze data



# Measurements Testbed

- Scheduled beamtime
  - 1 day twice per month at 2 week intervals (approx.)
  - limited number of participating stations
- Beamtime Priority
  - Scientific Urgency
  - Industrial Measurement
  - User Community Enrichment
- Selection (*internal review*)
  - Can we do it?
  - Can we do it safely?
  - Is it most likely to result in the desired useful information?



# Measurements Access Mode

- 2-BM-B Tomography, Phase Contrast Imaging
- 11-BM-B High-Resolution Powder Diffraction
- 12-ID-B GISAXS, SAXS, WAXS (*start 2011-1*)
- 9-BM-B X-ray Absorption Fine Structure
- 20-ID-B XES, XRSc, uXAFS, uFluorescence (hard X-ray)

