

# Summary of Breakout Session

## 1 Conclusions

Fundamental property  
characterization

# Documentary Standards Needs

- For raw materials
- For process control/quality
- Performance measures
- Practice guides/guidance documents (near term)
  - On what information is needed when handling/using nanoparticles
  - On sample preparation, stability considerations, surface analysis, etc.
- Means to classify or “grade” nanomaterials so users can make informed decisions about what they are purchasing (fit for purpose, good enough)
- Guidance document on suite of measurement techniques that go together and the information the combined data set may provide
  - What measurement techniques are applicable what their limitations

# Measurement Needs

- In situ measurement tools
- Specification of materials for specific applications
  - Properties and definitions thereof
- Standardized measurement methods
  - Measurements that are proven to be appropriate and “fit for purpose”
    - For mixed production processes, specify key characteristics of needed NM properties
  - Identify priorities – which methods should we concentrate on first
    - Determine “quality” needed – how much is enough
- Measurements for toxicity testing

# Reference materials

- Polydisperse reference materials for instrument/measurement performance

# Communication Mechanisms

- Combine resources of different committees and organizations to address cross cutting issues
- Permanently updated discussion forum to align information and developments from the different SDOs
  - Should include existing standards and NWIs
- Database of existing measurement tools and new tools needed
- Definitions (terminology) from all sources in a searchable database, freely available
  - May need to define new terms (dustiness, for example)
  - May need to construct an agreement amongst the various parties to make terminology available in one document