



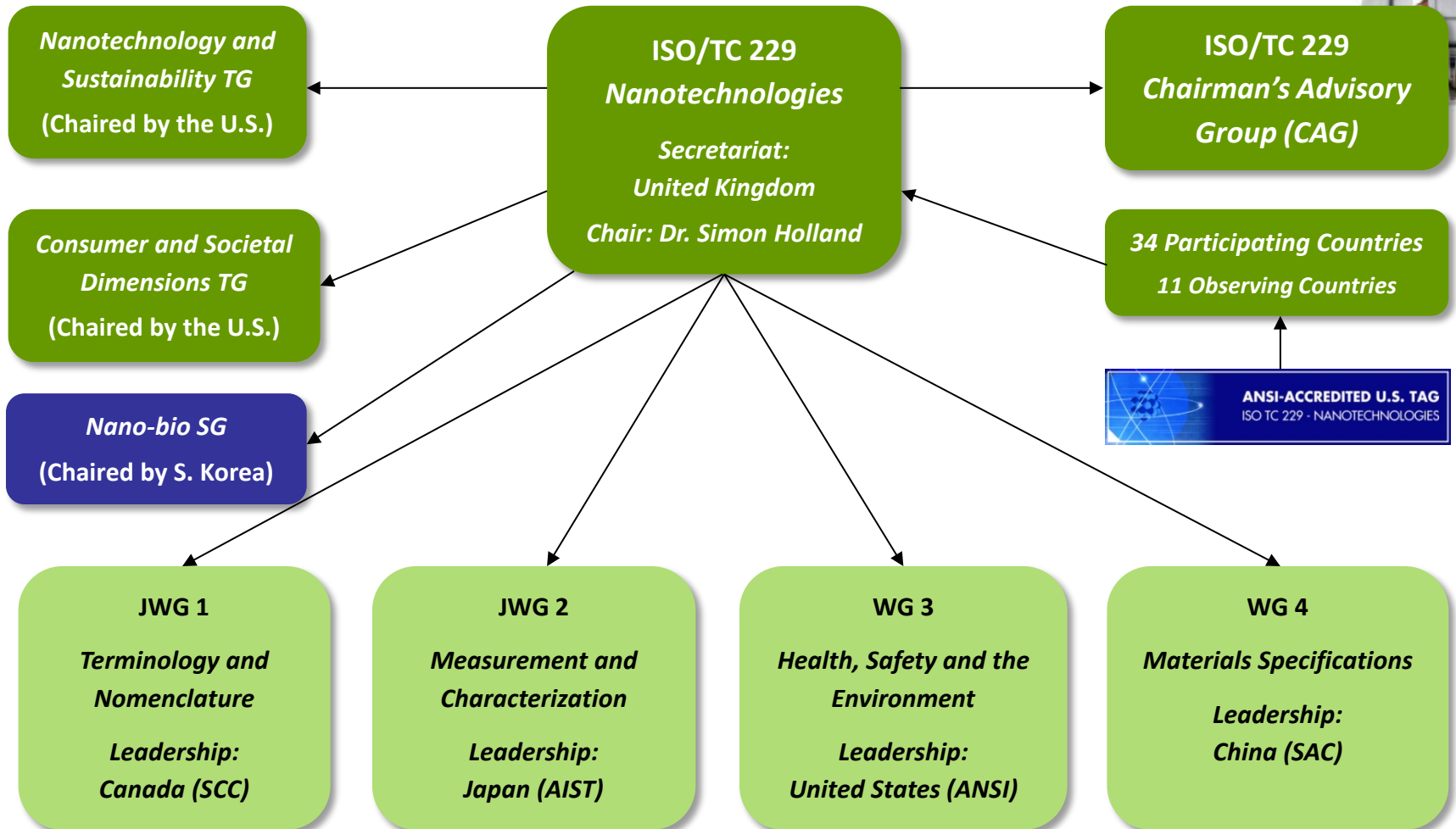
# ISO Technical Committee 229 “Nanotechnologies”

# ISO Technical Committee 229, *Nanotechnologies*



- **ISO Technical Committee 229, *Nanotechnologies***
  - Established in June 2005
  - Led by the British Standards Institute (BSI)
    - Chaired by Dr. Simon Holland, UK, GSK
  - 34 participating member bodies and 11 observers
  - Approximately 37 Liaison members, including external organizations such as OECD, VAMAS and IUPAC
  - 36 ISO Documents published as of December 4, 2013

# How Is ISO TC 229 Organized?



# ISO TC 229 Joint Working Group 1 Terminology and Nomenclature



- Working Group Convenorship assigned to Canada (Dr. Clive Willis)
- 80004 Vocabulary Series
  - Developed by collaboration between ISO/TC 229 and IEC/TC 113
    - Core terms
      - Nanotechnology, nanoscience, nanomaterial
    - Nano-objects
      - Nanoscale, nanoparticle, nanofibre
    - Carbon nano-objects
    - Nano/Bio interface
  - JWG 1 currently revising the Core Terms and Nano-objects documents
  - Work item recently added to develop vocabulary on Graphene and other 2d Materials

# ISO TC 229 Joint Working Group 2 Measurement and Characterization



- Working Group Convenorship assigned to Japan (Dr. Toshi Fujimoto)
- Published: 11 ISO characterization protocols
  - Carbon Nanotubes; both single and multiwall
  - Generic dimensional metrology
- Strongly support other working groups, esp. WG3 and WG4
- New Areas of development:
  - Graphene
  - Nanocellulose
- Study Groups
  - Tiered approach to identification of nanomaterials
  - TEM to assess particle size distribution

# ISO TC 229 WG 3

## Health, Safety and Environment



- **Working Group Convenorship assigned to United States (Dr. Laurie Locascio, NIST)**
- **Priority areas:**
  - **Establishing the foundations for responsible development nanotechnology, including:**
    - **Controlling occupational exposures**
    - **Determining relative toxicity/hazard potential**
    - **Measuring nanomaterial release from products**
- **Recently completed development of a Technical Specification providing voluntary guidance for the labelling of consumer products containing manufactured nano-objects (ISO/TS 13830).**

# ISO TC 229 WG 4

## Materials Specifications



- Working Group Convenorship assigned to China (Dr. Guanglu Ge)
- Approach:
  - By consensus, Identify characteristics required for specification of nanomaterials in intermediate stages of the supply chain
  - Use existing standards in terminology, metrology and HSE.

# ISO/TC 229 Task Groups and Study Groups



- Nanotechnology and Sustainability
  - Mr. Chris Bell, United States
- Consumer and Societal Dimensions of Nanotechnologies
  - Dr. Shaun Clancy, United States/ Dr. Francoise Roure, France, Co-Chair
- Nanotechnology and Biological Systems
  - Dr. Tae G. Lee, South Korea
  - Originally under WG 2, but has participation from all ISO/TC 229 Working Groups