Session 3: Where Do We Go From Here

David Morin (Environment Canada)
Jeff Morris (US EPA)

Work Together from Start to Finish

- Developing the Work Plan in consultation with stakeholders at the outset helped foster a common understanding of the objectives

- Active stakeholder involvement from both sides of the border throughout the life of the Work Plan allowed stakeholders to provide meaningful input and added credibility to the process

Work with the Right People

- Working with a core group of informed stakeholders on specific technical issues via the Technical Team increased the strength of the findings (e.g. uses of nanomaterials, approaches to classification of nanomaterials)

Communicate Often

- Holding regular teleconferences and webinars helped disseminate information to and receive information from stakeholders

- Setting up the appropriate mechanisms to directly engage relevant stakeholders:
  - Allowed the programs to obtain information critical to the delivery of all elements in the Work Plan
  - Improved relationships with stakeholders
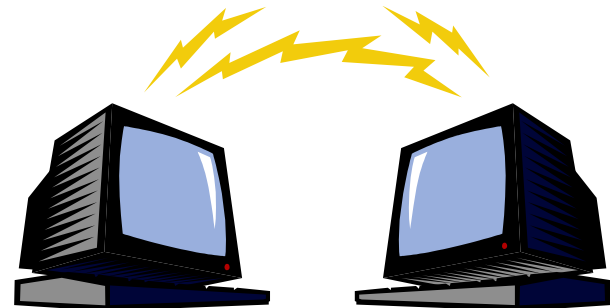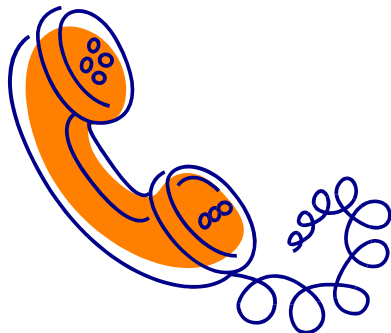
Communicate Clearly

- Clear communication to stakeholders about how requested information will be used is essential to ensure meaningful contributions

RCC Nanotechnology Initiative

What Stakeholders Can Expect

Policy Principles

- A shared set of Policy Principles was identified to guide the oversight and regulatory landscape of nanomaterials

- The Policy Principles emphasize transparency, appropriate consistency across departments and agencies, collaboration, consideration of both benefits and risks, and adaptability to new information and advances in scientific understanding

Stakeholders can expect a consistent policy approach for nanomaterials in both Canada and the US

Commercial Information

- Through the RCC Nanotechnology Initiative, the Programs have a significantly better picture of industrial uses in both countries

Pre-RCC

	Coatings	Paints	Electronics	Batteries
Carbon Nanotubes				
Graphene				
Fullerenes				
POSS				
Modified silica	•			
Aluminum oxide				
Antimony tin oxide				
Bismuth oxide				
Cerium oxide				
Nickel (II) oxide				
Nanocellulose	•	•		

Post-RCC

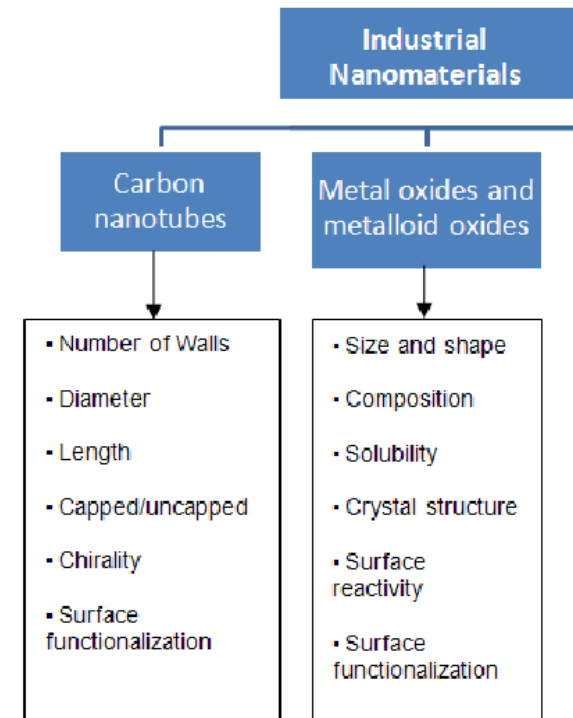|	Coatings	Paints	Electronics	Batteries
Carbon Nanotubes	•	•	•	•
Graphene	•	•	•	•
Fullerenes	•		•	
POSS	•	•		
Modified silica	•	•	•	
Aluminum oxide	•	•	•	•
Antimony tin oxide	•		•	•
Bismuth oxide	•			
Cerium oxide	•			•
Nickel (II) oxide	•		•	•
Nanocellulose	•	•	•	

Stakeholders can expect this information to be used to better qualify exposures in risk assessments and focus information requests in control measures

Priority Setting

- Not all substances that fall within the nano size range exhibit unique properties
  - Assessments of these substances for environmental health and safety can be conducted using existing techniques/paradigms

- For substances that fall within the nano size range **and** exhibit unique properties, Canada and the US have developed a classification scheme that:
  - Identifies classes of nanomaterials that may require additional consideration; and

  - Provides a framework for considering information on similar nanomaterials (analogues/read-across) where appropriate; and

  - Will further inform ongoing discussions at the OECD WPMN

Industrial Nanomaterials

Carbon nanotubes
- Number of Walls
- Diameter
- Length
- Capped/uncapped
- Chirality
- Surface functionalization

Metal oxides and metalloid oxides
- Size and shape
- Composition
- Solubility
- Crystal structure
- Surface reactivity
- Surface functionalization

Stakeholders can expect that the classification scheme will be used by the Programs to identify specific data needs

Risk Assessment and Risk Management

1. <u>Particle Screening Assessment Framework</u>
   - A proposed approach to *systematically focus* human health concerns and additional testing requirements for nanomaterials based on their *physical characteristics* (e.g., size, particle shape, aspect ratio, solubility, composition and surface chemistry)

2. <u>A Common Outlook on the Environmental Fate and Ecological Effects of Nanomaterials</u>
   - C*ommon assumptions* on dealing with environmental fate and ecological effects were documented and will be *refined* as better scientific information is available

> **Stakeholders can expect that data submitted to both programs will be used in a consistent manner**

Canada and the US New Substances Programs will be able to:

- Use a consistent policy approach between the two countries to guide the regulatory oversight of nanomaterials

- Give more targeted advice to stakeholders on information needs, under their respective legislation, for industrial nanomaterials

- Use the information submitted by notifiers in a consistent, efficient, and aligned manner with increased predictability

- Conduct more informed risk assessments and more targeted risk management

Where do we go from here?

Jan -March 2014

- Present outcomes of RCC work plan to stakeholders on January 14th, 2014
- finalize reports from RCC nano work plan
- Develop communication plan for publishing workplan reports, and reporting out on work elements, lessons learned from RCC initiative, linkages, etc

March - Sept 2014

- Develop material for appropriate media (e.g., science policy journals)
- Further outreach to stakeholders on implementation of nano workplan
- Ongoing engagement of technical team to assist in developing a path forward to begin implementation of the workplan elements (1) Further refinement of classes approach; (2) Further refinement of fate, exposure and effects considerations; and (3) further alignment and comparison of risk assessment and risk management approaches.

June 2014

- Present RCC findings to foster discussion at the international level with a special session on regulatory alignment at the next OECD WPMN meeting

Sept 2014

- Face-to-face meeting (in line with OECD Categories workshop) to identify areas of additional improvement and to identify additional opportunities to implement RCC Nano key outcomes in the New Substances Program
- Take stock of progress in implementing RCC nano workplan