#### International Conference on Nanotechnology for Safe and Sustainable Development

and

Consultative Meeting on proposed Nanosafety Networking Platform 2-4 May 2017 Putrajaya, Malaysia

South – South Cooperation for Strengthening Nanotechnology R&D Management An overview of APCTT's programme

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# Outline

- 1. Background
- 2. Why Nanotechnology?
- 3. APCTT's approach and focus
- 4. Regional consultations
- 5. National capacity building, tools and resources
- 6. The way forward





# **Background of the project**

UNESCAP Resolution 60/1 (Shanghai Declaration), 2004:

... To encourage the establishment of a regional network of research institutions and universities in the ESCAP region by 2006 in order to promote education, technical skills development and technology transfer through the exchange of programmes, students and academics.

Recommendation of the Second Session of the Governing Council and the Second Meeting of the Technical Committee of APCTT, December 2006, Lahore, Pakistan.





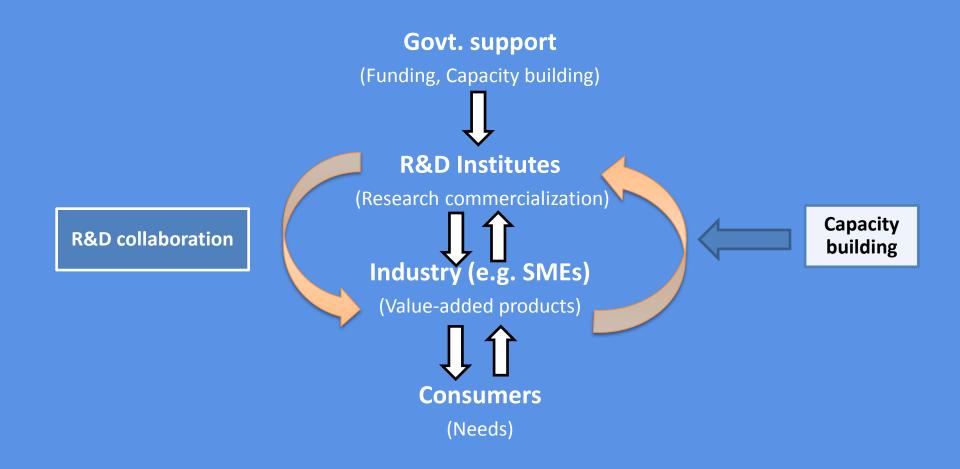
# **Regional Cooperation in nanotechnology !**

- New and emerging technology
- Applications in a wide range of industrial sectors
- Critical for the SME sector with immense opportunities
- North-South gap between Asia-Pacific region and developed countries of Europe and America
- Wide gaps between countries within the Asia-Pacific region
- Meeting Sustainable development Goals (SDGs)
  Nano-encapsulation of fertilizers and pesticides, Water purification, Solar cell manufacturing, Medicine and health care, etc





#### Nanotechnology R&D Integrating top-down and bottom-up approaches







### Focus of APCTT's nanotechnology programme

Nanotechnology-based value added products		Capacity building on critical aspects of R&D management			Research collaboration between R&D institutes and industry	
Networking among R&D institutions		Commercialization of research results			Information exchange / sharing	
	Sharing of experience / best practices			Lessons learned from case studies		





### **Regional consultations**

- 1. Promoting innovation in nanotechnology and fostering its industrial application: an Asia-Pacific perspective, 2-3 Dec 2009, Colombo, Sri Lanka
- 2. Expert Group Meeting on "Networking of R&D institutions in the Asia-Pacific to strengthen capacity of R&D management and innovation in the field of nanotechnology", 7-8 Dec 2011, Bangkok, Thailand
- 3. Expert Group Meeting on testing, standardization and certification of nanomaterial and nanoproducts, 23 July 2014, Manila, Philippines
- 4. Regional Open Innovation Forum on Promoting Nanotechnology and Agriculture for Sustainable Development, 27-28 October 2014, Shah Alam, Malaysia
- 5. International Conference on Nanotechnology for Safe and Sustainable Development, 2-4 May 2017, Putrajaya, Malaysia





## National capacity building

National workshops on strengthening nanotechnology R&D management and innovation :

Indonesia (Jun 2013); Malaysia (Dec 2013); Islamic Republic of Iran (Feb 2014); Philippines (Jul 2014); Malaysia (Oct 2014); Sri Lanka (Nov 2015)

#### Focusing on:

- ✓ Nanosafety, standardization and certification of nanoproducts
- ✓ Developing R&D collaboration with industry
- Adopting good intellectual property (IP) practices and leveraging the IP generated for commercial benefit
- ✓ Commercialization of research results
- ✓ Policy making, strategy development and roadmapping
- More than 110 experts shared their experience and best practices
- Nearly 600 target participants representing a wide range of national organizations,

institutions and SMEs have been benefited





#### **Tools and resources**

Manual on Critical Issues in Nanotechnology R&D Management: An Asia-Pacific Perspective

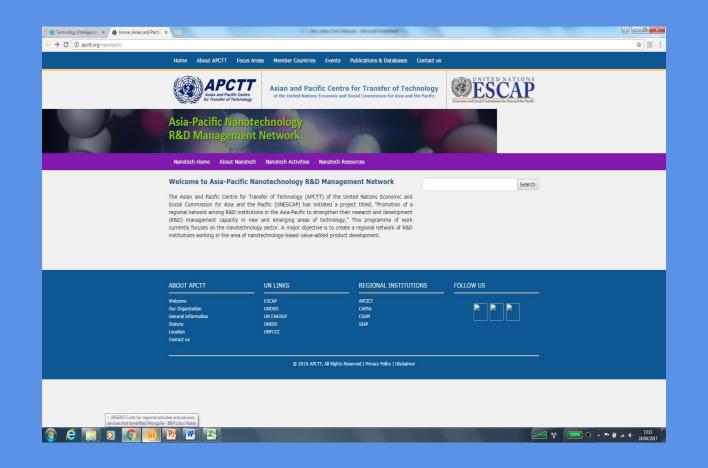
The Manual addresses the following issues:

- Nano-safety, Standardization, and Certification
- Protection and Valuation of Intellectual Property
- Commercialization of R&D Results
- Case Studies on the Development and Commercialization of Nanotechnology-based Value Added Products from the Asia-Pacific region – 26 case studies from 11 Asia-Pacific countries; 6 from developed countries
- 'Asia-Pacific Nanotechnology R&D Management' website http://apctt.org/nanotech/
- Databases of nanotechnology R&D institutions and technologies
- Analytical study report "Innovative Development of Bottom-up Nanotechnology-based Value Added Products for Enhancing Competitiveness in the Asia-Pacific





#### Asia-Pacific Nanotechnology R&D Management Network http://apctt.org/nanotech/







# The way forward

- Enhance capacity of member countries in policy making and strategy development
- Organize regional and national capacity building workshops through South-South Cooperation
- Promote cross-border nanotechnology commercialization
- Promote networking and collaboration among stakeholders
- Conduct analytical studies for the benefit of member country stakeholders







#### For more information, contact

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