□ Federal Ministry
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 □ Energy, Mobility,
 │ Innovation and Technology

# EU-Asia Dialogue on Nanosafety and Nanostandardization; Aims and Collaborations Prospects

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Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation
and Technology
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INNIS-Nano Workshop "International Nanosafety and Nanostandardization:

Status, Gaps, Needs and the Role of INISS"



#### ANF at a glance

- Asia Nano Forum (ANF) is a network organization, with the goal to promote responsible
  development of nanotechnology that educationally, socially, environmentally and economically
  benefits each economy by fostering international network collaboration.
- Working Groups: standardization, User facility network, nano safety, Commercialisation
- Working Group on Standardization
  - Participate in international standardization activities As liaison member of ISO/TC 229 and
    - IEC/TC 113 WG3
  - Promote mutual recognition of nano-enabled products certification







# Standardization projects of ANF

- IECTS 62607-4-4:2016 Nanomanufacturing Key control characteristics Part 4-4: Nano-enabled electrical energy storage Thermal characterization of nanomaterials, nail penetration method (published)
- IECTS 62844:2016 Guidelines for quality and risk assessment for nano-enabled electrotechnical products (published)
- ISO PWI 4971 Nanotechnologies Performance evaluation of nanosuspensions containing clay nanoplates for quorum quenching (working project)

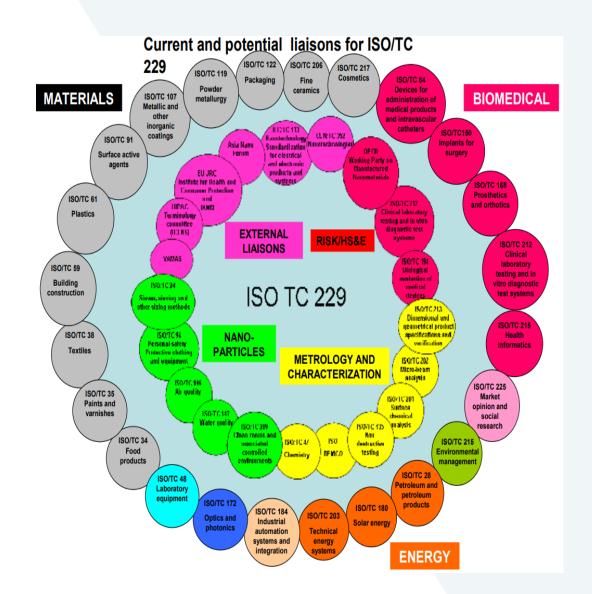
#### Past events as example of collaboration

 Nanosafety Forum on Country Experiences and Predictive Model Development for Safety Guidelines and Standardization" on the 6<sup>th</sup> of August 2021



#### **ISO TC 229**

- developing standards for: terminology and nomenclature, metrology and instrumentation, including specifications for reference materials, test methodologies, modelling and simulations, and science-based health, safety, and environmental practices.
- 101 published ISO standards, 32 ISO standards under development, 39 participating members, 18 observing members



# EU-Asia Dialogue on Nanosafety: History and Aim (1)

- International cooperation and collaboration is a key focus for NanoSafety and the NSC
- 1st Dialogue was hosted by the Tehran University of Medical Sciences (TUMS) on the 28 30 November 2017. Several areas for cooperation and collaboration between the ANF and the NSC were identified:
  - sharing of scientific data,
  - harmonisation and knowledge exchange on social dialogue and risk governance
  - scientific collaboration including co-applications for funding in the areas of nanosafety and nanomedicine characterisation
  - cooperation on nano-certification and nano-standardisation efforts

### **History and Aim**

- 2nd Dialogue in Vienna 2018 the four breakout sessions mapped to these four key areas
  mentioned above. The meeting aimed to facilitate development of concrete joint actions, and
  establishment of an action plan to convert the ideas into practice
- 3<sup>rd</sup> Dialogue in Bangkok 2019 set up concrete Actions: INNIS-Nano
- 4<sup>th</sup> Dialogue on NanoSafety online 2020 and 5<sup>th</sup> Dialogue in Kuala Lumpur: further discussion on INNIS-Nano

#### **INNIS-Nano:** goals



- Cooperation between science, industry and government from world-wide partners
- connecting different networks (NSC, ANF, OECD, Standardisation bodies, ECHA etc...)
- common activities (training, standardization efforts, test-guideline development, commercialisation, supporting governance, regulatory guidance, etc...)
- transfer of scientific results into policy, regulation, standardisation, etc...
- collection and analysis of available information worldwide

#### INNIS-Nano: added value and action fields

- Identify gaps and/or bottlenecks to initiate common activities (joint funding programs, research projects, exchange programs for students, data sharing, share of common infrastructure,...)
- supports the work of global organization, like OECD
- Create bridges with regional metrology organizations (e.g. Euramet, APMP, SIM,...)
- Action fields:
  - Harmonisation and Standardisation
  - Support industrial understanding
  - sharing of resources and infrastructure
  - Ethical and legal aspects

### 6th EU-Asia Dialogue on Nanosafety

- 21th of June, Berlin, back-to-back with the conference: "International Conference: How the world deals with materials on the nanoscale" https://www.bmuv.de/en/service/events/event/international-conference-on-nanomaterials
- host: German Federal Ministry for the Environment (BMUV)
- Topic: "The role of characterization and how it is addressed in INISS-Nano".
- registration: https://www.bnn.at/events/6th-eu-asia-dialogue-on-nanosafety/

# 6th EU-Asia Dialogue on Nanosafety.Preliminary Agenda

#### Chair/moderator: Jana Drbohlavova (EC); Andreas Falk (BNN)

Time	Agenda
10:00 10:10 10:20	Welcome Tobias Schaeffter Anita Breyer Wannee Chinsirikul, president of ANF
10:30 10:40 10:50 11:00 11:10 11:25 11:40	Presentations (90min) Key Note 1: "Recap of the 5 <sup>th</sup> EU-Asia Dialogue" Ruslinda A. Rahm, MOSTI. Malaysia (10 min) Key Note 2: "Safe and Sustainable by Design at OECD", Kathrin Schwirn, Germany (10 min) Key Note 3: "Characterization research efforts in Asian countries", Wannee Chinsirikul, Asia (10 min) Key Note 4: German Interagency Working Group on Advanced Materials, Andrea Haase, Germany (10 min) Key Note 5: "Relevance of Standardization of characterization", Ali Beitollahi, Asia (15 min) Key Note 6: IRISS - SSbD-ecosystem – synergies with INISS-nano, Emma Stromberg, Coordinator of IRISS-project (15 min) Key Note 7: EU-US-Communities of research – Characterization initiatives, Vladimir Lobaskin (UCD) – EU-co-chair (15 min)
12:00	Group photo
12:15	Lunch Break (60 min)
13:15	Guided Tour (45 min)
14:00	INISS-Nano action plan The role of INISS-nano action plans for the global collaboration, Andreas Falk, BNN, Austria – INISS-nano co-coordinator
14:10	Break-out Session (80 min) Goal: to identify concrete actions that can be initiated by INISS -nano Group 1. [Pillar 1 — Characterisation items in Standardization] Chair: Ali Beitollahi, Steffi Friedrichs Rapporteur: Georges Favre Group 2. [Pillar 2 — Industrial characterization needs] Chair: Patricia Farias, Pushplata Singh Rapporteur: Vinicius Bim Group 3. [Pillar 3 — characterisation facilities and infrastructures] Chair: Ali Marjovi, Effie Marcoulaki Rapporteur: Ramjitti Indaraprasirt Group 4. [Pillar 4 — societal and ethical considerations — policy framework for characterization] Chair: Ineke Malsch, Waluree Thongkam Rapporteur: Flemming Cassee
15:30	Break (30 min)
16:00 16:10 16:20 16:30	Presentation (each group has 5 min to present & 5 min for Q&A) Group 1. George Favre Group 2. Vinicius Bim Group 3. Ramjitti Indaraprasirt Group 4. Flemming Cassee
16:40	Closing Wrap-up, Closing remarks, Announcement of 7 <sup>th</sup> EU-Asia Dialogue

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