

NanoWeek & NanoCommons Final Conference 2022

“Evolution of Nanosafety and materials sustainability as we transition into Horizon Europe”.

Cyprus, 20 – 24 June 2022, Conference venue: Crown Plaza Limassol, Promachon Eleftherias 2, Agios Athanasios, Limassol

Virtual participation via Google Meet:

Keynotes and Track 1 Hazard, Exposure and SSbD, first CoR breakout session

<https://meet.google.com/iav-eogy-qxa>

Or dial: (CY) +357 22 024122 PIN: 430 584 257 3961#

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Track 2: Nanoinformatics & Data, second CoR breakout session

<https://meet.google.com/hyo-xfpc-guv>

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Track 3: Third CoR breakout session

<https://meet.google.com/mtq-rzph-rni>

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Updated 21st June 2022: Note that the programme is subject to minor changes due to ongoing Covid situation

Monday 20th June	
08.30	Welcome and registration
	Young NanoSafety Scientists session (Chairs: Stefania Melandri and Ilaria Zanoni (CNR / ASINA)) (SUITE B)
09.00 – 10.00	Presentation of NanoSafety Early Career Research (ECR) Network (Presentation of group, activities, and Coordination Board)
10.00 – 11.00	Introduction of the participants (who are you? What is your field of interest?)
11.00 – 11.30	Coffee break
11.30 – 13.00	Nanosafety Science speed dating
13.00 – 14.15	Lunch
	NanoCommons Final Conference (SUITE B) Chairs: Iseult Lynch & Antreas Afantitis

14.15– 14.30	Opening remarks & welcome Welcome from Cypriot National Contact point– Stamatis Dimopoulos - Research Promotion Foundation, Cyprus	
14.30 – 15.00	Keynote 1 - Fred Klaessig , Pennsylvania Bio Nano Systems; https://www.linkedin.com/in/fred-klaessig-b5800aa/ “Some open questions in understanding and predicting nanomaterials dissolution”	
15.00 – 16.00	NanoCommons Transnational Access projects Showcase: Short presentations from NanoCommons Transnational Access (TA) Users 1) Deven Joshi (TEMAS Solution/NanoPAT): Data management solutions for inline/online processes 2) Diego Martinez (CNPEM LNNano): Building the Brazilian infrastructure for nanosafety data management 3) Egon Willighagen (IDEA/MU): Integrating eNanoMapper and NanoCommons via APIs 4) Konstantinos Giannakopoulos (Demokritos, virtual): Image analysis applied to complex and agglomerated NMs 5) Periklis Tsiros-NTUA, and pre-recording from Dingsheng Li - University of Nevada): Integration of biokinetics models in the NanoCommons infrastructure through the Jaqpot platform 6) Antreas Afantitis (NovaMechanics): NanoCommons & NanoSolveIT KNIME nodes: Will they blend?	
16.00– 16.30	Coffee Break	
	Track 1: Hazard, Exposure and SSbD (SUITE B) Chairs: Martin Himly & Socorro Vázquez-Campos	Track 2: Nanoinformatics & Data (SUITE A) Chairs: Dario Greco & Damjana Drobne
16.30 – 16.45	Interaction of different types of carbon nanomaterials of industrial interest with human primary macrophages from blood donors: nanotoxicology and immune activation – A. Artiga (CNRS)	Community infrastructure for nanosafety: the future of NanoCommons I. Lynch (University of Birmingham)
16.45 – 17.00	Accounting for nanomaterials-related toxicity issues in the environmental Life Cycle Assessment (LCA) studies – A R&D case study - B. Belloncle (Materia Nova)	A “traffic light” methodology enabling the automatic assessment of Data Quality and Completeness of nanosafety physicochemical and hazard information for Risk Assessment purposes – G. Basei (GreenDecision Srl)
17.00 – 17.15	Label-free Impedance-based Methods for Nanotoxicity Assessment – M. Cimpan (University of Bergen)	Improving data findability and accessibility – M. Bakker/Cowie (Institute of Occupational Medicine)
17.15 – 17.30	Much ado about silica: surface modification mitigates silica nanoparticle-triggered cytotoxicity and pro-inflammatory cytokine release in human monocytes – B. Fadeel (Karolinska Institutet)	Data shepherding in nanotechnology. The ASINA case – I. Furxhi (Transgero Limited)
17.30 – 17.45	Biotransformation Modulates the Penetration of Metallic Nanomaterials across the Blood Brain Barrier – Z. Guo (University of Birmingham)	Which FAIR assessment tools to use? – M.I. Bakker/Quik (RIVM)
17.45 – 18.00	Use of single particle ICP-MS to estimate silver nanoparticle penetration through baby porcine mucosa – I. Zanoni (CNR-ISTEC)	Reducing the obstacles for the use of in vitro toxicity data of nanomaterials in life cycle assessment and human risk assessment – P. Wick (Empa)
18.00 – 18.30	Keynote 2 - Susana Loureiro , University of Aveiro; http://www.cesam.ua.pt/index.php?tabela=pessoaldetail&menu=198&user=103	

	"Increasing the realism and regulatory relevance of nanomaterials safety research – the role of mesocosms" (SUITE B)	
18.30 – 19.00	Open Round Table: Sustaining a community infrastructure (Chair: Iseult Lynch) (SUITE B) Panellists: Evert Bouman, Carlos Fitos, Panagiotis Isigonis, Dieter Maier and Isabel Rodriguez Llopis	
19.30 – 22.30	Dinner (Crown Plaza Limassol) and stroll to the Marina	
Tuesday 21st June		
08.00	Registration	
09.00 – 09.30	Keynote 3 - Cecilia Mattevi , Imperial College London. https://www.imperial.ac.uk/people/c.mattevi "Synthesis of 2D materials and their three-dimensional structuring into miniaturized devices for application as energy storage devices and energy conversion systems" (Virtual) (SUITE B)	
	Track 1: Hazard, Exposure and SSbD (SUITE B) Chairs: Arno Gutleb & Ilaria Zanoni	Track 2: Nanoinformatics & Data (SUITE A) Chairs: Martin Himly & Iseult Lynch
09.30 – 09.45	Engineered nanomaterial-relevant AOPs; network creation and identification of key nodes for adverse outcomes – S. Poulsen (National Research Centre for the Working Environment)	A Portal and IT infrastructure supporting Risk Governance of nano- and advanced materials and nano-enabled products – E.A. Bouman (NILU)
09.45 - 10.00	Assessing the similarity of nanoforms based on the biodegradation of organic surface treatment chemicals – R. Cross (UKCEH)	DoE applied to photocatalytic surface for waste water remediation – L. Faccani (CNR-ISTEC)
10.00 - 10.15	Validation of an advanced 3D respiratory tri-culture model at the air-liquid interface for hazard assessment of nanomaterials – E. Elje (NILU)	NInChI / SciDataCon session (in conjunction with international data week / SciDataCon 2022 – Data to improve our world) Chairs: Thomas Exner, Iseult Lynch & Tae-Hyun Yoon (S. Korea)
10.15 - 10.30	Hazard identification of nanomaterials: in silico unravelling of descriptors for cytotoxicity and genotoxicity – N. El. Yamani (NILU)	- Iseult Lynch (UoB): Welcome and introduction to NanoInChI - John Rumble (RandRdata): Minimal reporting and CODATA Universal Description System
10.30 - 10.45	In vitro cytokinesis block micronucleus (CBMN) assay to evaluate the genotoxicity of multicomponent nanomaterials – a comparison with their individual counterparts – A. Saccardo (Swansea University)	Virtual presentations from SciDataCon: - Jungho Shin: ChemDX and MatDX : big-data web services for chemists and materials scientists- Jongwoon Kim: Mixture Risk Assessment Database on Combined Toxicities and Exposures of Chemicals and Mixtures
10.45 - 11.00	Titania-supported metal photocatalytic coating for protection against COVID-19 outbreak – A.M. Moschovi/Yakoumis (YS Cypriot Catalysts Ltd)	- Minkyu Park: Simulation Paradigm Shift to the Platform: Materials Square
11.00 - 11.30	Coffee	Back in Cyprus: - Gerd Blanke: The IUPAC International Chemical Identifier (InChI) - Antreas Afantitis (NovaMechanics): NInChI prototype & needs Note: Coffee in the meeting room

	Track 1: Hazard, Exposure and SSbD (SUITE B) Chairs: Simon Clavaguera & Ilaria Zanoni	Track 2: Nanoinformatics & Data (SUITE A) Chairs: Angela Serra & Iseult Lynch
11.30 - 11.45	Safe and Sustainable by design alternatives applied to antiviral and antimicrobial nano-Ag technology – M. Blosi (CNR-ISTEC)	Representation requirements and possible extensions to NInChI to facilitate the development of data-driven structure-property models – E. Marcoulaki (National Center for Scientific Research “Demokritos”)
11.45 - 12.00	Identification of the Safe(r) By Design alternatives of Nanosilver-enabled wound dressings – V. Cazzagon (University Ca' Foscari of Venice)	The role of digitalization in the safe and sustainable design of manufacturing nanoproceses. Conceptual framework and first results of the ASINA project - J. M. Lopez de Ipiña (TECNALIA Research and Innovation)
12.00 - 12.15	A Safe by Design approach for the synthesis of TiO ₂ -based nanoparticles for the photocatalytic degradation of pollutants under visible light – Grigoropoulos (Creative Nano PC)	Developing and documenting PBPK models for nanomaterials: a TiO ₂ case study – H. Sarimveis (NTUA)
12.15 - 12.30	Sector specific practices and nanosafety alerts for Safe by Design (SbD) in the 3D printing and paints sectors – J. Hanlon (Institute of Occupational Medicine)	Introducing the European Registry of Materials Identifier: a global, unique identifier for (undisclosed) nanomaterials – J. Van Rijn (Maastricht University)
12.30 - 12.45	Emissions characterization from 3D printing processes using polymeric and CNTloaded filaments – a SAbYNA case study – A. Clavaguera/Salmatonidis (LEITAT)	Instance Maps: A tool for on-the-fly (meta)data collection – T. Exner (7P9-DE)
12.45 - 13.00	Towards safety and sustainability in scalable production of semiconducting nano and non-nanomaterials: Zinc oxide - a case study – P.M.A. Farias (Federal University of Pernambuco)	Integrating exposure, hazard and risk modelling across scales to support safe by design of nanomaterials - A. Afantitis (NovaMechanics Ltd.)
13.00 - 14.30	Lunch Conference Photo	
	Track 1: Hazard, Exposure and SSbD (SUITE B) Chairs: Matine Bakker & Nathan Bossa	Track 2: Nanoinformatics & Data (SUITE A) Chairs: Anastasios Papadimitris & Tomasz Puzyn
14.30 - 14.45	Optofluidic Force Induction as Process Analytical Technology – M. Šimić (University of Graz)	Meta-analysis of Bioaccumulation Data for Non-Dissolvable Nanomaterials in Freshwater Aquatic Organisms – Y. Zheng (EMPA)
14.45 - 15.00	Production of Safe and Functional Nanomaterials introducing the Safety by Process Control Concept – F. Doganis (NTUA)	Subspace Clustering as a tool for the similarity assessment and the Read-Across of Nanomaterials – G. Basei (GreenDecision Srl)
15.00 - 15.15	Chlorella vulgaris/TiO ₂ NPs hybrid nanomaterials: new sustainable by design strategy for water treatment applications – A. Brigliadori (CNR-ISTEC)	Hydrophobicity and protein-protein interactions in nanoparticle coronas – N.V. Buchete / S. Dutta (University College Dublin)

15.15 – 15.30	Updating the OECD 211 Daphnia magna reproduction test for particle-based toxicant exposures – K. Reilly (University of Birmingham)	Synergistic strategies for management of nanotechnologies Molecular Adverse Outcome Pathways: towards the implementation of transcriptomics data in risk assessments – M. Martens (Maastricht University)
15.30 - 16.00	Poster pitches Session 1A (see list below)	Poster pitches Session 1B (see list below)
16.00 - 16.30	Coffee Break	
	Track 1: Hazard, Exposure and SSbD (SUITE B) Chairs: Anna Costa & Tobias Stoeger	Track 2: Nanoinformatics & Data (SUITE A) Chairs: Danail Hristozov & Stefania Melandri
16.30 - 16.45	Wine fining: study on nanostructured mesoporous titania thin layers for adsorption of low molecular weight wine proteins – M. Serantoni (CNR-ISTEC)	Computational modeling of intrinsic and extrinsic descriptors of nanomaterials – A. Colibaba / Vladimir Lobaskin (University College Dublin)
16.45 - 17.00	Mechanochemistry of PGMs – Z. Cherkezova-Zheleva / Yakoumis (ENEA)	Nanocomposites via Simulations Across Scales – V. Harmandaris (The Cyprus Institute)
17.00 - 17.15	Antibacterial and Stability Tests of Silver Nanoparticle Spray-Coated Fabrics – A. Varesano (CNR-STIIMA)	Advancing our understanding of plastic fragmentation in the environment through a mechanistic model of micro- and nanoplastic fragmentation – S. Harrison (UKCEH)
17.15 – 17.30	ChemPGM- Chemistry of Platinum Group Metals – M.L. Grilli/YAKOUMIS (ENEA)	Cross-selling Nanosafety Modeling Tools: Susceptibility Differences of Respiratory Epithelial Barriers to SARS-CoV-2 Transmission by Virion-laden Aerosol Particles in the Adult and Juvenile Human Lung – S. Hofer (PLUS)
17.30 - 18.00	Poster pitches Session 2A (see list below)	Poster pitches Session 2B (see list below)
18.00 - 18.30	Round Table on data management needs & approaches (Chair: Egon Willighagen & Thomas Exner) (SUITE B) Panellists: Anna Costa, Martine Bakker; Danail Hristozov, Damjana Drobne and Socorro Vacquez-Campos	
18.30 - 18.45	Introduction to NanoHarmony interactive session (SUITE B)	
19.00 - 22.30	Outdoor Poster session with cocktails & buffet dinner, plus NanoHarmony interactive session	

List of poster-pitch presentations (3 minutes per poster pitch)

Track 1A: Hazard, Exposure and Safe & Sustainable by design (Tuesday 15.30 - 16.00 pm)

- A1 Functionalization of imogolites by metal nanoparticles: Safe by Design approach for Copper. [Dorra Gargouri](#) (Université Paris-Saclay)
- A2 NANOPAT: Process Analytical Technologies for Industrial Nanoparticle Production. [Marvin Münzberg](#) (University of Postdam)
- A3 Development of Innovative Catalytic Device for Marine Applications. Marios Kourtelesis (Monolithos Catalysts & Recycling Ltd)
- A4 Nanosized copper-based catalyst for automotive: physicochemical characterization. [Amaia Soto Beobide](#) (Foundation for Research and Technology / Institute of Chemical Engineering Sciences FORTH)
- A5 Monitoring measurements of Ag Nanoparticle Spray-Coated on Textiles. [Simona Ortellì](#) (Institute of Science and Technology for Ceramics-National Research Council of Italy)
- A6 Life-cycle Risk Assessment of Graphene Functional Fabrics: Outcomes, Data Gaps and Priorities. [James Ede](#) (Vireo Advisors)
- A7 Identifying and quantifying release from ASINA NEP with antibacterial properties, towards Safe-by-Design strategies along the whole product's life-cycle. [David Burrueco-Subirà](#) (LEITAT Technological Center)
- A8 Coupling nanomaterial release to a flow-through membrane-on-chip screening module for rapid assessment of engineered nanomaterials. [Will Stokes](#) (University of Leeds)
- A9 Strategies to assess health and environment exposure risks to bio-based nanomaterials. [Carla F. Martins](#) (Instituto de Soldadura e Qualidade)

Track 1A: Hazard, Exposure and Safe & Sustainable by design (Tuesday, 17.30 - 18.00 pm)

- A10 Environmental Life Cycle Assessment and Cost Analysis of The Production of Ti6Al4V-TiC Metal-Matrix Composite Powder by High-Energy Ball Milling. [Mario Santiago-Herrera](#) (International Research Center in Critical Raw Materials for Advanced Industrial Technologies)
- A11 Adaptation and validation of test methods for physicochemical characterization of nanomaterials: the RiskGONE approach. [Elise Moschini](#) (Luxembourg Institute of Science and Technology)
- A12 Genotoxicity assessment of lung cells cultured at the air-liquid interface: comparison of bronchial and alveolar mono- and cocultures. [Elisabeth Elje](#) (Norwegian Institute for Air Research)
- A13 Collective cellular dynamics for Nano safety assessment. [Karmveer Yadav](#) (ICAR-National Dairy Research Institute)
- A14 Development of a liver carcinoma biomarker panel in 3D HepG2 Liver spheroids following exposure to nanomaterials. [Gillian E. Conway](#) (Swansea University Medical School)
- A15 Sex-related in vivo response to metallic nanoparticles. [Ivana Vinković Vrček](#) (Institute for Medical Research and Occupational Health)

- A16 A gene regulation model reveals an ancestral adaptation response to particulate exposure triggered by nanomaterials. [Guicy del Giudice](#) (University of Tampere).
- A17 Water management affects the impact of CeO₂ NPs in rice (growing under flooded and aerobic soil conditions). [Peng Zhang](#) (University of Birmingham)
- A18 Scientific basis for adapting technical guidelines for nanomaterials testing: the case of the OECD Test Guidelines with algae, daphnia and fish. [Susana Loureiro](#) (University of Aveiro) [**Note:** this is also part of the NanoHarmony TG session]

Track 1B: Nanoinformatics and data management (Tuesday 15.30 - 16.00 pm)

- B1 Reusability of data from acute toxicity studies in aquatic organisms and bioaccumulation studies in fish – building templates for the eNanoMapper database. [Judit Kalman](#) (National Institute for Agricultural and Food Research and Technology) [**Note:** this is also part of the NanoHarmony TG session]
- B2 Can all experimental nanosafety data be reused? No. Let's help improve the situation. [Marvin Martens](#) for Ammar Ammar (Maastricht University)
- B3 Reuse of genotoxicity data on nanomaterials: the importance of being FAIR. [Cecilia Bossa](#) (Istituto Superiore di Sanità)
- B4 The GO FAIR AdvancedNano Implementation Network. [Verónica I. Dumit](#) (The German Federal Institute for Risk Assessment)
- B5 “A Stakeholder’s Perspective of Safe-and-Sustainable-by-Design (SSbD)”. Report on the SABYDOMA workshop held on Friday 18th February 2022. [Ignasi Gispert Pi](#) (Applied NanoParticles S.L.)
- B6 Requirements for improvement of existing strategies for Safe by Design (SbD) of NFs/ NEPs to be implemented by industry in SAByNA. [Nathan Bossa](#) (LEITAT technological center)
- B7 Streamlining models and tools for release, fate and exposure assessment of NFs/NEPs for Safe by Design (SbD) purposes. [James Hanlon](#) (Institute of Occupational Medicine)
- B8 GRACIOUS Wiki and Blueprint. [Alex Zabeo](#) (Greendecision Srl)
- B9 Guidance on risk governance of nanomaterials through decision schemes and the RiskGONE cloud platform. [Panagiotis Isigonis](#) (Ca' Foscari University of Venice)

Track 2B: Nanoinformatics and data management (Tuesday 17.30 - 18.00 pm)

- B10 Integrating ethics in risk governance of nanomaterials in tyres. [Ineke Malsch](#) (Malsch TechnoValuation)
- B11 Engineered manganese oxide nanoparticles alter highly the transcriptomic landscape of A549 cells, in comparison with the limited effect of an engineered manganese-decorated graphene. [Juan Antonio Tamayo-Ramos](#) for Juan José González-Plaza (International Research Centre in Critical Raw Materials-ICCRAM)
- B12 Semantic modelling of Adverse Outcome Pathways and the implementation in reproducible workflows. [Marvin Martens](#) (Maastricht University)
- B13 Quantifying Uncertainty and Optimizing Experimental Design in Dose-Response Screenings of Nanoparticles: a Bayesian Data Analysis. [Felice Carlo Simeone](#) (Institute for Science and Technology of Ceramics)
- B14 The SUNSHINE e-Infrastructure. [Alex Zabeo](#) (Greendecision Srl)
- B15 The NanoInformaTIX platform: idea, methodology and current development. [Gianpietro Basei](#) (Greendecision Srl)
- B16 Digitisation in NanoSafety Research - an interactive poster. [Thomas Exner](#) (SevenPastNine)

- B17 New descriptor to quantify the number, nature and specific reactivity (Oxidative Turnover Frequency) of surface reactive sites for nanomaterials evaluation, grouping and dose metrics. V. Alcolea-Rodriguez, R. Portela, [Miguel A. Bañares](#) (Instituto de Catálisis y Petroleoquímica, CSIC)
- B18 Towards QSAR/QSPR modeling of multicomponent advanced nanomaterials. [Alicja Mikolajczyk](#) (QSARLabs)

(See later in document for the full list of poster presentations).

Wednesday 22nd June	
8:00	Registration
08:20 - 09:00	Keynote 4 - Phil Demokritou , Harvard University, https://environment.harvard.edu/people/philip-demokritou "Sustainable Nanotechnology: Bio-inspired, nature derived and non-toxic nanomaterials for agri-food systems applications" (SUITE B)
	Track 1: Hazard, Exposure and SSbD (SUITE B) Chairs: Tobias Stoeger & Tomasso Serchi
	Track 2: Nanoinformatics & Data (SUITE A) Chairs: Georgia Melagraki & Miguel Banares
09.00 – 09.15	Occupational risk assessment and management of nano-enabled magnetite contrast agent using the BIORIMA Decision Support System – V. Cazzagon (University Ca' Foscari of Venice)
	First principles modelling of nanomaterials properties – K. Kotsis (University College Dublin)
09.15 – 09.30	TRAAC framework for regulatory acceptance and wider usability of tools and methods for safe innovation and sustainability of manufactured nanomaterials – W. Fransman (TNO)
	Multi-scale modelling of aggregation of TiO ₂ nanoparticles in water – G. Mancardi (Politecnico di Torino)
09.30 - 09.45	An Early Decision Toolbox Facilitating Safe-by-Design Anti-allergy Nanovaccine Development – L. Johnson (University of Salzburg)
	Multi-scale modelling of the nanoparticle – protein corona – I. Rouse (University College Dublin)
09.45 - 10.00	Synergistic strategies for management of nanotechnologies safety – J. Laranjeira (ISQ-Instituto de Soldadura e Qualidade)
	Exploring Adverse Outcome Pathways for nanomaterials with semantic web technologies – J. Van Rijn (Maastricht University)
10.00 - 10.15	Towards risk governance of nanomaterials: adaptation and validation of test methods for characterization and hazard assessment – E. Longhin (NILU)
	System-dependent QSAR modelling for nanoparticles – T. Puzyn (University of Gdansk)
10.15 - 10.30	A Weight of Evidence approach to classify nanomaterials according to the EU CLP Regulation criteria – G. Basei (GreenDecision Srl)
	Jaqpot: A computational platform supporting in silico modelling of nanomaterials – H. Sarimveis (NTUA)
10.30 - 11.00	Coffee Break
	Plenary session Chair: Iseult Lynch and Fred Klaessig (SUITE B)
11.00 – 11.30	Keynote 5 - Matt Hull , Virginia Tech; https://vt.edu/link/license/faculty-inventors/matthew-hull.html "From NanoSafety to Sustainable Nano-enabled Innovation Ecosystems: a 20 Year Journey"

11.30 - 12.00	NMBP13 projects: Overview of steps towards future nano risk governance		
12:00 - 12:15	NanoFabNet launch event		
12.15- 12.30	Closing remarks, prize giving & Hand-over to CoRs		
12.30 - 14.00	Lunch		
14.00 -17.45	Bridging Scientific Communities (EU-US CoRs and EU NSC)		
14.00 - 14.15	2022 NanoEHS CoR Workshop (Chairs: Arno Gutleb & Rhema Bjorkland) (SUITE B) Welcome, Introductions & CoRs highlights (2020-2022) – Arno Gutleb (LIST)		
14.15 - 14.45	Program Overview Horizon Europe – Jana Drbohlavova (EC, Virtual Presentation) Programme Overview NNI – Lisa Friedersdorf (NNI, Virtual Presentation)		
14.45 - 15.15	Plenary Keynote: Best practices and strategies for building interdisciplinary and international communities of research – Christine Ogilvie Hendren (Appalachian State University)		
15.15 – 15.30	Coffee Break (provided in the x3 breakout rooms)		
15.30 - 17.00	NanoEHS CoRs Breakout Session I (SUITE B) · Ecotoxicity and Human Health CoRs <i>(Session chairs: Susana Loureiro and Olga Tsyusko-Unrine; Arno Gutleb and Christie Sayes)</i> <u>Discussion topic:</u> Towards One Health – deeper integration of ecotox and human tox	NanoEHS CoRs Breakout Session I (SUITE C) Database and informatics during Nano-Week: Key takeaways <i>(Session chairs: Egon Willighagen and Fred Klaessig)</i>	Training session on NanoSolveIT and NanoCommons modelling tools (SUITE A)
17.00 - 17.45	NanoSafety Cluster Session: Bridging Communities (Chairs: Andreas Falk and Cris Rocca) (SUITE B) Aims: Create a collaborative environment in specific areas that are/could be well connected: <ul style="list-style-type: none"> o Safety and Sustainability by Design o Micro- and nanoplastics o Environment, health and safety of nanotechnologies/nanomaterials/advanced materials o Sustainable materials o Chemicals o Processes What is expected from participating communities/clusters? Short 2 minute presentations (max. 2 slides) <ol style="list-style-type: none"> 1. Get to know the core assets and action areas of each community/cluster. 2. Identify ideas, opportunities and contributions for collaboration. 3. Define common grounds for cross-community collaboration. 		
18.30 - 22.30	Cyprus Tour (by bus – please be on time) and Traditional Taverna dinner		

Thursday 23rd June

	Training Activities (SUITE B – all day)	EU-US CoRs activities (SUITE A and SUITE C)	
09.00 – 10.00	Training: Speed dating on decision support systems (DSS) for SSbD - What can I expect / what do I need to know / for whom is it useful / do we have what we need?	NIInChI hands-on 1	
10.00 – 10.30	DSS presenters (tool exhibition): Wouter Fransman, Susan Dekkers, Lisa Pizzol, Massimo Perucca, Philip Doganis, Isabel Rodriguez, Carlos Fito	Plenary: NanoEHS CORs Report Out from Breakout 1 (SUITE A)	
10.30 - 11.00	Wrap-up & Round table on “What is SSbD & how to implement it in real life” - What do DSS for SSbD deliver & how to implement them in real life? Panel: Soco Vazquez, Andres Falk, Sean Kelly & all DSS speed dating presenters	CoRs Plenary Keynote: Two decades of nanoEHS research: Moving forward – George Katalagarianakis and Mark Wiesner (SUITE A)	
11.00 - 11.30	Coffee Break		
11.30 - 12.15	Training on Adverse Outcome Pathways (AOPs) of NMs - Identification & structure of AOPs - How to create your own AOP & what formalities do you have to know to submit it? Trainers: Sarah Poulsen & Ulla Vogel	Breakout Session II (SUITE A) Nanoplastics characterization, detection, and informatics: Lessons from nanoEHS (1) <i>(Session chairs: Vladimir Lobaskin and Anil Patri)</i>	Breakout Session II (SUITE C) Exposure to aerosolized nanoscale particles <i>(Session chairs: Christof Asbach and Paul Westerhoff; Arno Gutleb)</i>

12.15 - 13.00	Training (NanoHarmony): From science to standards and guidelines: Making your science regulatory relevant <ul style="list-style-type: none"> - How to establish OECD TGs & GDs? - How to develop new science for use in regulation? Trainers: Sean Kelly, Erik Bleeker, Tommaso Serchi, Anna Pohl Online support: Thomas Kuhlbusch		
13.00 – 14.30 Lunch			
14.30 – 16.00	Training: Selecting and applying nanotoxicity hypotheses - NMs grouping in practice <ul style="list-style-type: none"> - The grouping framework - Case studies on different NMs interactively played through Trainers: Helinor Johnston, Mario Pink Online support: Fiona Murphy, Andrea Haase & Vicki Stone	Breakout Session III (SUITE A) Nanoplastics characterization, detection, and informatics: Lessons from nanoEHS (2) (<i>Session chairs:</i> Vladimir Lobaskin and Anil Patri)	Breakout Session III (SUITE C) Nano Risk Management & Control: Recent develops from nanosafety to inform policy decisions (<i>Session chairs:</i> Ulla Vogel (in person) and Khara Grieger – Virtually) Virtual presentations from: Alba Graciela Avila Bernal (Columbia): Community engagement in Nanosafety using an App Paul Schulte (NIOSH): US perspective on regulation of nanomaterials Maaïke Visser/Susan Dekkers (RIVM): Towards health-based nano reference values
16.00 - 16.30 Coffee Break			
16.30 – 18.00	Training: Integrating nano-related data: Linking SOPs via instance maps to electronic data management systems Trainers: Thomas Exner, Benjamin Punz, Katie Reilly, Litty Johnson, Jaleesia Amos, Nathan Bossa, Martin Himly	Closing Plenary (SUITE A) <ul style="list-style-type: none"> · COR Report Out and Discussion · Final Remarks 	
18.30 – 22.30 Dinner in the mountains with musical performance			

Friday 24th June	
	NInChI hands-on 2
09.00 – 11.00	Project GAs (in parallel)
11.00 - 11.30	Coffee Break
11.30 – 13.00	Project GAs (in parallel)
13.00 -14.00	Lunch
14.00 – 16.00	Project GAs (in parallel)
16.00 – 16.30	Coffee Break
16.30 – late	Optional sightseeing trip and dinner (self-funded)

List of Poster presentations

Posters 1-36 are listed under the Poster pitches

NanoHarmony Test Guideline Series

- 37 The EU project NanoHarmony – Towards harmonized test methods for nanomaterials. [Elisabeth Heunisch](#) (Federal Institute for Occupational Safety and Health, BAuA)
- 38 From science to standards and guidelines: Making your science regulatory relevant. Eric Bleeker (National Institute for Public Health and the Environment, RIVM)
- 39 NanoHarmony: Improving the OECD Test Guidelines Process. [Eric Bleeker](#) (National Institute for Public Health and the Environment)
- 40 Towards a Guidance Document for identification and quantification of the surface chemistry and coatings on nano- and microscale materials [Jakob Kleng Nøjgaard](#) (National Research Center for the Working Environment)
- 41 On the road towards a Guidance Document for determination of the solubility and dissolution rates of nanomaterials in water and biologically relevant media. [Keld Alstrup Jensen](#) (National Research Centre for the Working Environment)
- 42 Development of an OECD Test Guideline for the dustiness testing of manufactured nanomaterials. [Anna Pohl](#) (Federal Institute for Occupational Safety and Health, (BAuA)
- 43 Development of two OECD Guidance Documents for nanomaterials dustiness data applicability: exposure assessment and ATEX safety. [Carla Ribalta](#) (National Research Centre for the Working Environment, NRCWE)
- 44 Development of a Guidance Document for testing the abiotic transformation of Nanomaterials in Environmental Media. [Lucie Stetten](#) (University of Vienna)
- 45 Development of a new Guidance Document on the determination of concentrations of nanoparticles in biological samples for (eco)toxicity studies – A systematic review of single particle ICP-MS. [Adam Laycock](#) (UK Health Security Agency)
- 46 Applicability of the key event based OECD TG 442D for in vitro skin sensitization testing of nanomaterials. [Christian Kropf](#) (Federal Office of Public Health FOPH)

- 47 Nanomaterial Toxicokinetics: Supporting OECD Test Guideline Development. Ilse Gosens (National Institute for Public Health and the Environment, RIVM)
- 48 Integrated In Vitro Approach for Intestinal Fate of Orally Ingested Nanomaterials. Cristina Andreoli (ISTITUTO SUPERIORE DI SANITA)
- 49 Scientific basis for adapting technical guidelines for nanomaterials testing: the case of the OECD Test Guidelines with algae, daphnia and fish. Susana Loureiro (University of Aveiro)
- 50 Gov4Nano Task 2.8 Studies on bioaccumulation of nanomaterials in fish. Judit Kalman (National Institute for Agricultural and Food Research and Technology)
- 51 Scoping Review on the Scientific Basis for New Guidance on the Determination of Bioaccumulation Potential of Manufactured Nanomaterials. Richard. D. Handy (University of Plymouth)

Track 1 Posters – Hazard, Exposure and SSbD

- 52 Production and Characterisation of Ni/SiC nanocomposite coatings through a novel U/S assisted Electroplating cell. Evangelos Papaioannou (Creative Nano PC)
- 53 Developing Photocatalytic Titanium Dioxide Nanocomposite Coatings. Sophie M. Briffa (University of Malta)
- 54 Dustiness index determination: a tool for a safer by design development of advanced nanomaterials. Sebastien Artous (Univ. Grenoble Alpes, CEA)
- 55 Development of a Safer-by-Design Nano-Structured Tungsten Carbide-Cobalt (nWC-Co) Wear-Resistant Coating. Joséphine Steck (Univ. Grenoble Alpes, CEA)
- 56 Development of a Guidance Document for testing the abiotic transformation of Nanomaterials in Environmental Media. Lucie Stetten (University of Vienna)
- 57 Optimizing the immunologic profile of silica nanoparticles by surface functionalization while retaining its biopharmaceutical carrier function; Implementing instance maps and SOPs for nanomedical innovation. Benjamin Punz (Paris Lodron University of Salzburg)
- 58 Restoration of Antibacterial Activity of Inactive Antibiotics via Combined Treatment with Silver Based Antibacterial Nanomaterials at Non-Toxic Concentrations to Human Cells. Ales Panacek (Palacký University in Olomouc)
- 59 Antimicrobial textiles effective against SARS-CoV-2 functionalized by silver nanoparticles in PVA. Claudia Vineis (National Research Council of Italy)
- 60 Novel Connective Tissue Growth Factor (CTGF)-loaded Alginate and Alginate Sulfate/Polycaprolactone Nanoparticles with Promising Wound Healing Activity. Mia Karam (American University of Beirut)
- 61 An approach towards in vitro-based human toxicity effect factors for the Life Cycle Impact Assessment of inhaled low-solubility particles. Daina Romeo (Empa, Swiss Federal Laboratories for Materials Science and Technology)
- 62 Effects of polystyrene micro- and nanoparticles and their mixtures with pharmaceuticals on modulation of estrogen receptor activity in vitro. Lucija Božičević (Institute for Medical Research and Occupational Health)
- 63 Blood brain barrier permeability of selenium nanoparticles. Nikolina Peranić (Institute for Medical Research and Occupational Health)

- 64 Neurotoxicity of nanomaterials are associated with their biotransformation. [Zhiling Guo](#) (University of Birmingham)
- 65 Towards simple, robust, and cost-effective in vitro models for the hazard assessment of nanomaterials. [Alberto Katsumiti](#) (GAIKER Technology Centre)
- 66 Aquatic Toxicity Testing and Assessment of Acute Toxicity of Graphene Material Nanoforms to Meet Regulatory Needs. [Mona Connolly](#) (Instituto Nacional de sUstainable Investigación y Tecnología Agraria y Alimentaria-Consejo Superior de Investigaciones Científicas, INIC-CIC)
- 67 Next Generation of Microfluidics for a safe and sustainable diagnostics devices. [Clemens Wolf](#) (BioNanoNet Forschungsgesellschaft mbH)
- 68 Impedance-based real-time assessment of nanotoxicity in human and fish cells. [Håkon Van Ta](#) (University of Bergen)
- 69 Monitoring nanoparticle-induced oxidative stress using cyclic voltammetry and fluorescence-based assays. [Ivan Rios-Mondragon](#) (University of Bergen)
- 70 Development of vascular models to study the transport and effect of nanomaterials. [Ivan Rios-Mondragón](#) (University of Bergen)
- 71 Assessment of nanoparticle-induced oxidative stress using cyclic voltammetry and the convolution technique. [Emil Cimpan](#) (Western Norway University of Applied Sciences)
- 72 Assessing the mechanisms associated with the potential genotoxic effects of industrially-relevant multi-component nanomaterials: A comprehensive literature review and in vitro lung cell interactions. [Sian R. Brooks](#) (Swansea University)
- 73 Use of lung deposition modelling and dissolution behavior to assist on the selection of nanomaterial testing concentrations for in vitro assays. [Ana Candalija](#) (LEITAT Technological Center)
- 74 The Cytotoxic and Genotoxic effects of Carbon Nanotubes on Human Cells In Vitro. [Hanna Saarelainen](#) (Finnish Institute of Occupational Health)
- 75 Are silver nanoparticles internalized in dulse (*Palmaria palmata*) tissues and cells? How far do they go? [Monica Quarato](#) (International Iberian Nanotechnology Laboratory-INL)
- 76 Course of lung inflammation and injury caused by nanoparticle inhalation depends on material specific cellular perturbation patterns. Carola Voss / [Tobias Stoeger](#) (Helmholtz Zentrum München)
- 77 A highly innovative approach to the Safe by Design paradigm: The SABYDOMA story. [Andrew Nelson](#) (University of Leeds)
- 78 Bispyridinium compound screening using phospholipid target sensor elements. [Andrew Nelson](#) (University of Leeds)
- 79 Aminoquinoline binding to fluid lipid assemblies depends on NH₂-position on quinoline molecule. [Andrew Nelson](#) (University of Leeds)
- 80 Improving usability of the existing resources for Safe-by-Design processes. [Joséphine Steck](#) (Univ. Grenoble Alpes, CEA)
- 81 Safe-, sUstainable- and Recyclable-by design Polymeric systems: A guidance towardS next generation of plasticS (SURPASS). [Simon Clavaguera](#) (Univ. Grenoble Alpes, CEA)
- 82 SusNanoFab: Integrated EU strategy, services and international coordination activities for the promotion of competitive and sustainable nanofabrication industry. [Simon Clavaguera](#) (Univ. Grenoble Alpes, CEA)
- 83 Conceptual design of the HARMLESS Decision Support System. [Eugene van Someren](#) (TNO)
- 84 Safe-and-Sustainable-by-Design: the HARMLESS framework. [Véronique Adam](#) (TEMAS Solutions GmbH)

- 85 The safe and sustainability assessment integration for innovative nanomaterials. [Jesús Ibáñez](#) (ICCRAM – Universidad de Burgos)
- 86 Sustainability and cost considerations for Safe by Design (SbD) for the additive manufacturing sector. [James Hanlon](#) (Institute of Occupational Medicine, IOM)
- 87 Safety testing in the life cycle of nanotechnology-enabled medical technologies for health (SAFE-N-MEDTECH). [Shan Zienolddiny-Narui](#) (National Institute of Occupational Health)
- 88 Risk Governance of Nanomaterials. [Mark Morrison](#) (Optimat)
- 89 Organising for the Governance of Nanotechnology-related Risk. [Marie-Valentine Florin](#) (EPFL)
- 90 Tool verification processes within the development of the NANORIGO Nanogovernance framework. [Gerard Vales](#) (FIOH)
- 91 Nanotechnology Risk Governance Framework (NRGF) – adaptation of the IRGC approach. [Arto Säämänen](#) (Finnish Institute of Occupational Health)
- 92 **CUSP** - The European Research Cluster to **U**nderstand the Health Impact**S** of Micro- and Nano**P**lastics. [Lesley Tobin](#) (Optimat Ltd.)
- 93 PlasticsFatE: Plastics Fate and Effects in the Human Body. [Lesley Tobin](#) (Optimat Ltd.)

Track 2 posters: Nanoinformatics and Data

- 94 Hydrophobicity and protein-protein interactions in nanoparticle coronas. [Vigneshwari K. Annapoorani](#) (University College Dublin)
- 95 Ab-Initio and classical molecular dynamics modeling of bio-nano interface. [Alexander Lyubartsev](#) (Stockholm University)
- 96 Multiscale modelling of protein adsorption and competitive binding onto PEG-grafted gold and silver nanoparticles. [Julia Subbotina](#) (University College Dublin)
- 97 Variation in hydrophobicity for protein-nano complexes. [Sutapa Dutta](#) (University College Dublin)
- 98 Molecular Dynamics and Metadynamics Simulations of Protein in Aqueous Solution. [Vangelis Harmandaris](#) (Computation-based Science and Technology Research Center)
- 99 Shifting classical QSAR/QSPR paradigm for nanomaterials through predicting system-dependent properties from the system characteristics - Case studies. [Ewelina Wyrzykowska](#) (QSAR Lab Ltd.)
- 100 Application of machine learning modeling for prediction zeta potential of metal oxide nanoparticles. [Mateusz Balicki](#) (QSAR Lab Ltd.)
- 101 Subgraph NanoFingerprint for modelling metal oxide nanoparticles based on connected atoms exploration. [Francesc Serratosa](#) (Universitat Rovira i Virgili)
- 102 Interactions of graphene oxide and tannic acid: impacts on toxicity and computational modelling. [Romana Petry](#) (Federal University of ABC)
- 103 Could solubility of nano metal oxides be computed in silico? [Michał Kałapus](#) (University of Gdansk)
- 104 New descriptor to quantify the number, nature and specific reactivity (Oxidative Turnover Frequency) of surface reactive sites for nanomaterials evaluation, grouping and dose metrics. [Miguel A. Bañares](#) (Insituto de Catalisis y Petroleoquimica)

- 105 The DaNa4.0 web-based Knowledge Base Materials – 13 years of reliable risk communication on (nano)materials safety. [Katja Nau](#) (Karlsruhe Institute of Technology)
- 106 Using AOP-Wiki to support the ecotoxicological risk assessment of nanomaterials. [Anita Sosnowska](#) (QSAR Lab Ltd.)
- 107 In vitro to in vivo extrapolation to support the development of the next generation risk assessment (NGRA) strategy for nanomaterials. [Karolina Jagiello](#) (QSAR Lab Ltd.)
- 108 Grouping and read-across in an regulatory-wise case studies to predict nanomaterials ecotoxicity. [Maciej Gromelski](#) (QSAR Lab Ltd.)
- 109 An in silico integrated approach for testing and assessment of Nanomaterials by NanoSolveIT project. [Nikolaos Cheimarios](#) (NovaMechanics Ltd.)
- 110 An in vitro dosimetry application for the numerical transport modelling of engineered nanomaterials. [Nikolaos Cheimarios](#) (NovaMechanics Ltd.)
- 111 Data-driven or data-informed learning approach for predictive modelling? Towards novel numerical algorithms to support grouping and read-across of nanomaterials and advanced materials. [Agnieszka Gajewicz-Skretna](#) (University of Gdansk)
- 112 AOP fingerprint of the mechanism of action of MWCNTs. [Laura Aliisa Saarimäki](#) (Tampere University)
- 113 Nanomaterials as stressor in healthy and susceptible populations with pre-existing conditions: AOP supra-networks and the demand for a tiered approach of advanced immunotoxicity assay cascades. [Norbert Hofstätter](#) (Paris Lodron University of Salzburg)
- 114 Characterization of ENM dynamic dose-dependent MOA in lung with respect to immune cells infiltration. [Angela Serra](#) (Tampere University)
- 115 Data Management for Nanotechnology Risk Governance. [Martine Bakker](#) (RIVM)
- 116 FAIR co-creation or FAIR herding? eNanoMapper database, tools and workflows. [Nina Jeliaskova](#) (Ideaconsult Ltd.)
- 117 Evaluating data quality and completeness. [Thomas Exner](#) (Seven Past Nine)
- 118 ESPERANTO: a GLP-fied sEmi-SuPERvised toxicogenomics Meta-analysis of Bioaccumulation Data for Non-Dissolvable curatioN Tool. [Emanuele Di Lieto](#) (University of Helsinki)
- 119 A wisdom-of-crowd approach for ENMs safety concern prediction. [Michele Fratello](#) (Tampere University)
- 120 Isalos Analytics Platform: A Machine Learning/Artificial Intelligence Zero Code Solution for nanoinformatics model development. [Dimitra-Danai Varsou](#) (NovaMechanics Ltd.)
- 121 Enalos Cloud Platform: An integrated in silico toolset of innovative chem- bio- & nano- informatics models and services. [Dimitra-Danai Varsou](#) (NovaMechanics Ltd.)
- 122 Reduction of graphene oxide increases its pro-inflammatory effect on bronchial epithelial cells. Marco Pelin (University of Trieste, Trieste, Italy)
- 123 Role of carbon-to-oxygen ratio on the cytotoxicity and genotoxicity of reduced graphene oxide towards human bronchial cells. Adriana Rodriguez-Garraus (Finnish Institute of Occupational Health, Työterveyslaitos, Helsinki, Finland)
- 124 Predicting electrophoretic mobility of TiO₂, ZnO, and CeO₂ nanoparticles in natural waters: The importance of environment descriptors in nanoinformatics models. Marta Swirog (University of Gdansk)