

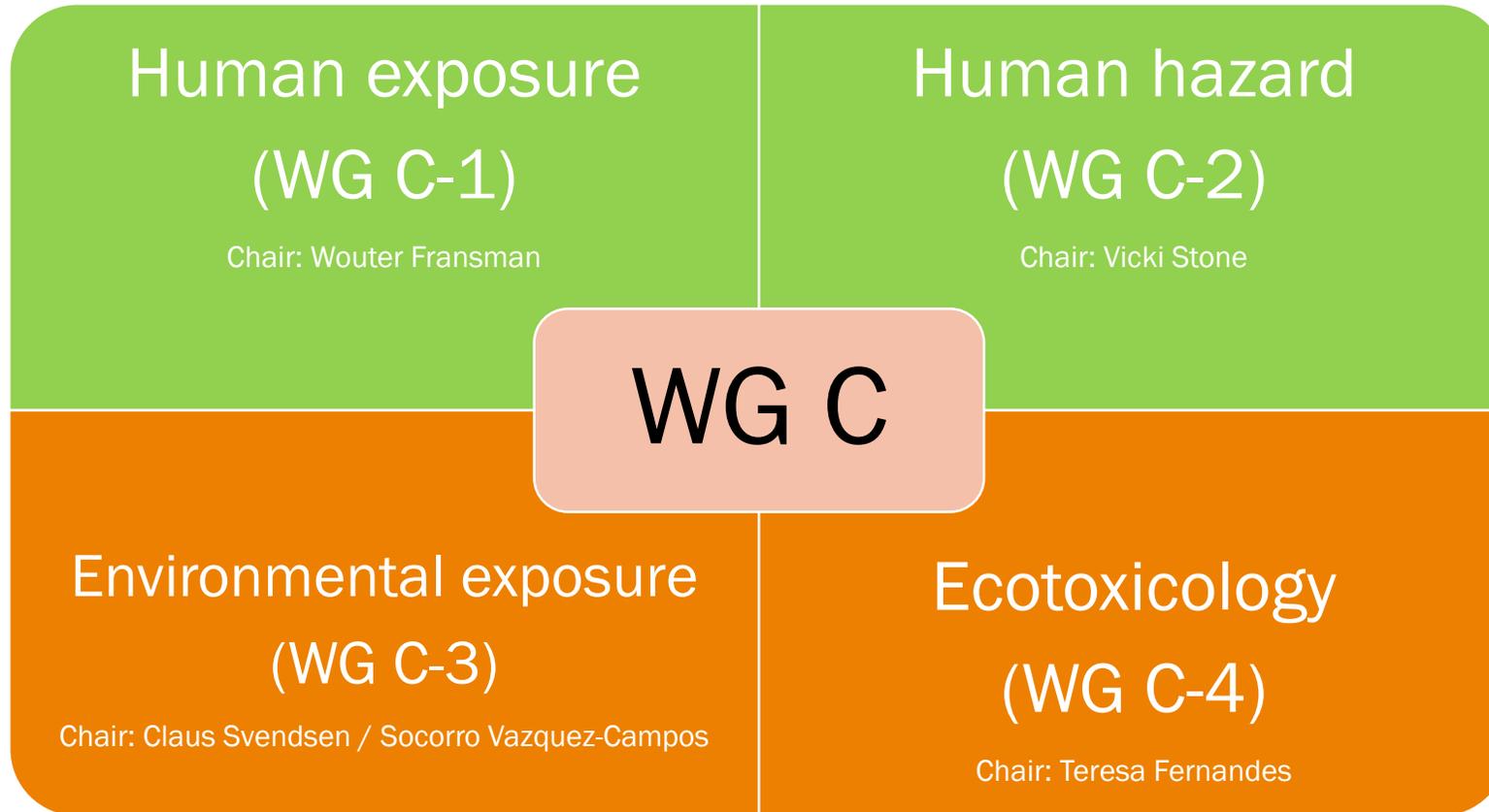
**SESSION 2: EXPOSURE & LIFE CYCLE ASSESSMENT -
DETERMINATION & MODELING**

WOUTER FRANSMAN

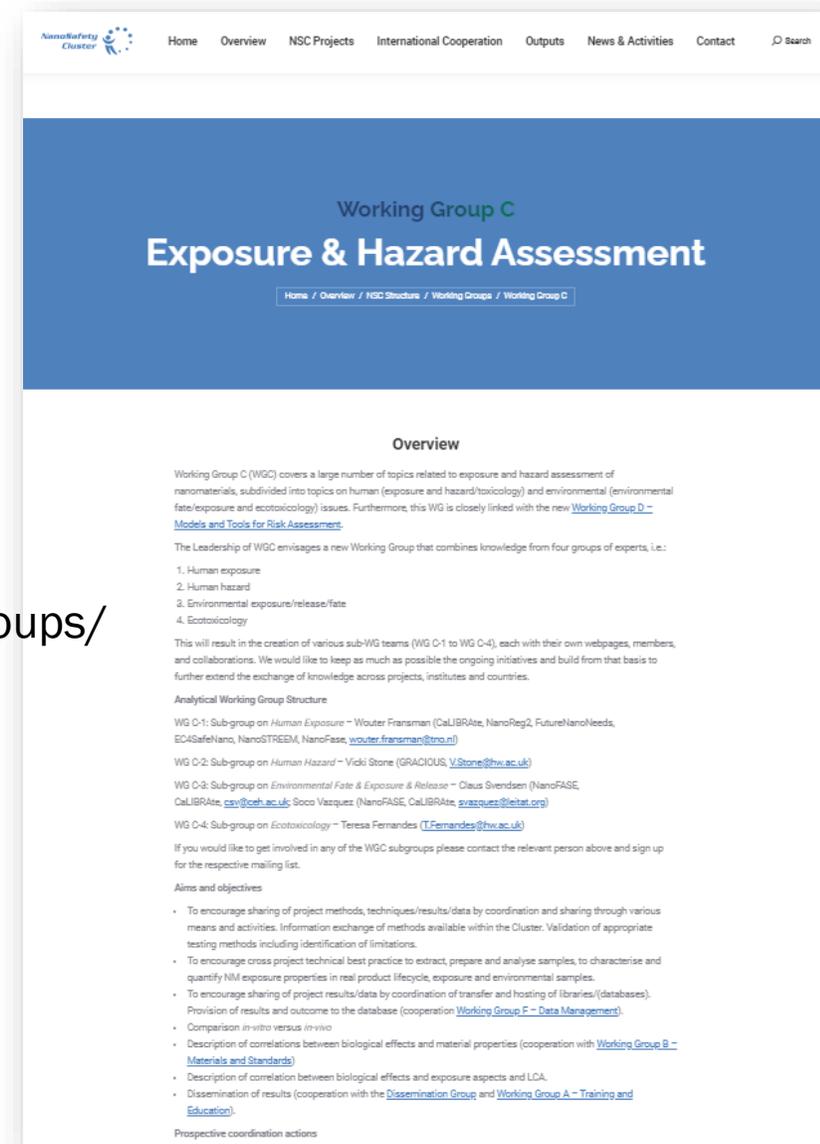
› AGENDA

- › 10:05 Introduction of Session Chair Wouter Fransman, TNO
- › 10:05 - 10:15 Extrapolation of exposure measurement data for similar exposure scenarios and/or similar materials - from regular chemicals to NMs (Remy Franken, TNO)
- › 10:15 - 10:30 Sharing of release and exposure measurement data (Camilla Delpivo, Leitat)
- › 10:30 - 10:45 Efficiency testing and implementation of risk management measures to mitigate exposure to NMs (Henk Goede, TNO)
- › 10:45 - 11:00 Life cycle thinking in nanoform release assessment (Nathan Bossa, Leitat)

WG C EXPOSURE AND HAZARD ASSESSMENT



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The screenshot shows the NanoSafety Cluster website page for Working Group C. The page has a blue header with the NanoSafety Cluster logo and navigation links: Home, Overview, NSC Projects, International Cooperation, Outputs, News & Activities, and Contact. A search icon is also present. Below the header, the main content area has a blue background with the text "Working Group C" and "Exposure & Hazard Assessment". A breadcrumb trail reads: Home / Overview / NSC Structure / Working Groups / Working Group C.

Overview

Working Group C (WGC) covers a large number of topics related to exposure and hazard assessment of nanomaterials, subdivided into topics on human (exposure and hazard/toxicology) and environmental (environmental fate/exposure and ecotoxicology) issues. Furthermore, this WG is closely linked with the new [Working Group D – Models and Tools for Risk Assessment](#).

The Leadership of WGC envisages a new Working Group that combines knowledge from four groups of experts, i.e.:

1. Human exposure
2. Human hazard
3. Environmental exposure/release/fate
4. Ecotoxicology

This will result in the creation of various sub-WG teams (WG C-1 to WG C-4), each with their own webpages, members, and collaborations. We would like to keep as much as possible the ongoing initiatives and build from that basis to further extend the exchange of knowledge across projects, institutes and countries.

Analytical Working Group Structure

WG C-1: Sub-group on *Human Exposure* – Wouter Fransman (CaLiBRate, NanoReg2, FutureNanoNeeds, EC4SafeNano, NanoSTREEM, NanoFase, wouter.fransman@tno.nl)

WG C-2: Sub-group on *Human Hazard* – Vicki Stone (GRACIOUS_V.Stone@hw.ac.uk)

WG C-3: Sub-group on *Environmental Fate & Exposure & Release* – Claus Svendsen (NanoFASE, CaLiBRate, csv@ceh.ac.uk), Socco Vazquez (NanoFASE, CaLiBRate, svazquez@leitat.org)

WG C-4: Sub-group on *Ecotoxicology* – Teresa Fernandes (TFernandes@hw.ac.uk)

If you would like to get involved in any of the WGC subgroups please contact the relevant person above and sign up for the respective mailing list.

Aims and objectives

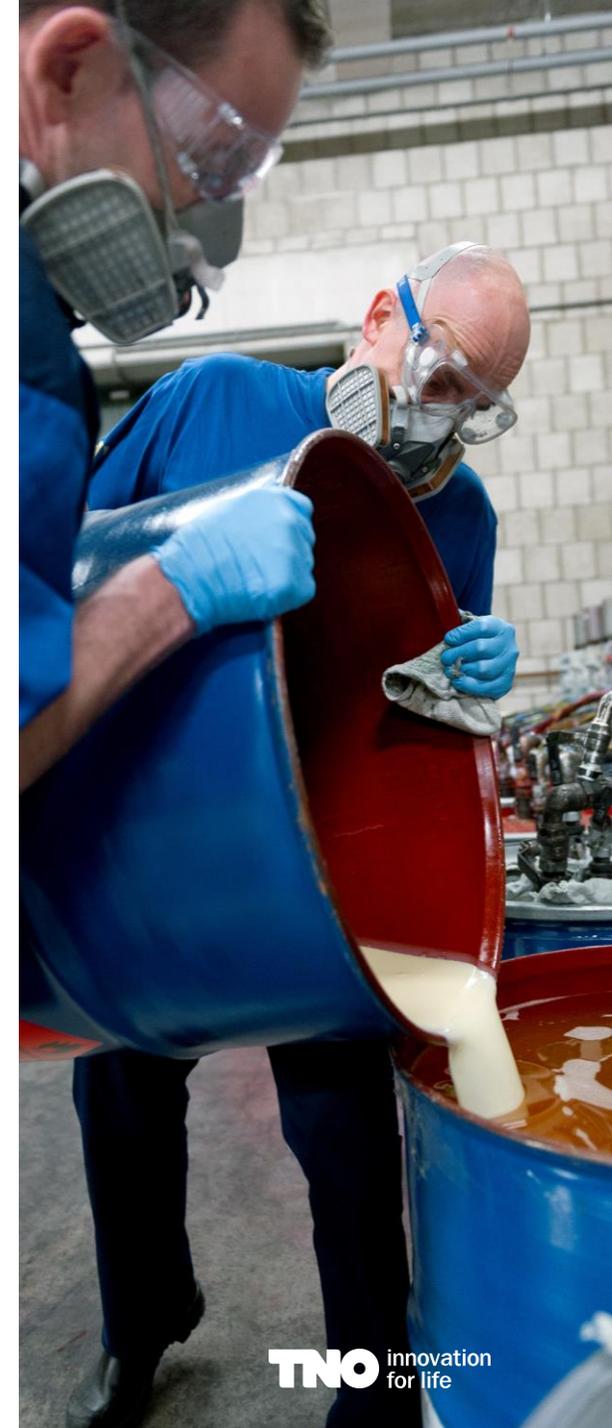
- To encourage sharing of project methods, techniques/results/data by coordination and sharing through various means and activities. Information exchange of methods available within the Cluster. Validation of appropriate testing methods including identification of limitations.
- To encourage cross project technical best practice to extract, prepare and analyse samples, to characterise and quantify NM exposure properties in real product, lifecycle, exposure and environmental samples.
- To encourage sharing of project results/data by coordination of transfer and hosting of libraries/(databases). Provision of results and outcome to the database (cooperation [Working Group E – Data Management](#)).
- Comparison *in-vitro* versus *in-vivo*
- Description of correlations between biological effects and material properties (cooperation with [Working Group B – Materials and Standards](#))
- Description of correlation between biological effects and exposure aspects and LCA.
- Dissemination of results (cooperation with the [Dissemination Group](#) and [Working Group A – Training and Education](#)).

Prospective coordination actions

<https://www.nanosafetycluster.eu/nsc-overview/nsc-structure/working-groups/>

› **WG C EXPOSURE AND HAZARD ASSESSMENT OBJECTIVES**

- › To encourage sharing of project **methods/techniques** by coordination and sharing through various means and activities. Information exchange of methods available within the Cluster. Validation of appropriate testing methods including identification of limitations.
- › To encourage cross project **technical best practice** to extract, prepare and analyse samples, to characterise and quantify NM exposure properties in real product lifecycle, exposure and environmental samples.
- › To encourage **sharing of project data** by coordination of transfer and hosting of libraries/(databases). Provision of results and outcome to the database (cooperation Working Group F – Data Management).
- › **Dissemination** of results (cooperation with the Dissemination Group and Working Group A – Training and Education)



WG C EXPOSURE AND HAZARD ASSESSMENT

ACTIVITIES & PLANS

- › CEN Round Robin testing of NM characterization by Electron Microscopy and low-cost sensors
- › Contributions to the Malta project and OECD activities via a variety of funded EC and national projects
- › Stimulating harmonization of data collection, analysis, reporting, and formats for storage and retrieval
- › Development and agreement on research priorities
- › Contribution to the recent US-EU Communities of Research (CoR) in Nanosafety and stimulate further joint activities with CoR
- › Discussions with ECRs with a view of being involved further in the direction of this working group
- › Further interaction with the research community and stakeholders work on nano- and microplastics
- › Transfer knowledge and experience on exposure and hazard assessment to develop safe-by-design strategies
- › Translate current state-of-knowledge on exposure and hazard assessment to underpin Nano Risk Governance

▶ **THANK YOU FOR
YOUR TIME**

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TNO innovation
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