

RISK-HUNT3R

Name of activity	RISK assessment of chemicals integrating Human centric Next generation Testing strategies promoting the 3Rs
Reference framework	Horizon 2020
Lead DG/Organisation	DG for Research and Innovation (DG RTD)
Link(s) to website(s)	Link
Programme Period	01.06.2021 - 31.05.2026
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Objectives

The vision of the RISK-HUNT3R consortium is to develop a reliable, efficient and cost-effective chemical safety assessment approach. It will be based entirely on non-animal testing methods and provide improved protection of the human population against systemic health effects caused by (chronic) chemical exposure. The major innovation provided by RISK-HUNT3R is a human-centric risk assessment strategy. RISK-HUNT3R will establish, optimize and assemble all essential safety-testing elements: exposure assessment, information on chemical distribution in the body, hazard characterisation, adverse outcome prediction and determination of actual risk in defined scenarios. RISK-HUNT3R integrates cutting-edge *in silico* (computational) and *in vitro* (experimental testing) technologies. Human (disease) genetics and exposome data will ensure anchoring of test results to the human situation. The project will ensure regulatory relevance by testing the applicability of the critical test systems integrated in the next generation risk assessment strategy. The ambitious overall deliverable will be a comprehensive computational framework for the prediction of human adverse outcomes, and a set of stringently evaluated assays to feed the required data into this framework. RISK-HUNT3R will engage with all key stakeholders from different industry sectors and international regulatory agencies to evaluate and warrant acceptance of the novel testing framework. The unique interaction of key stakeholders working together on real-world case studies will result in a ready-to-apply strategy in concordance with the European Commission's 'Green Deal'. Importantly, the project will push commercial exploitation of the validated safety assessment approaches, thereby ensuring sustainability of the project outcomes and fortifying the innovation capacity of the industry sectors involved.

Keywords	Chemical safety assessment, Exposure, Exposure assessment, Hazardous chemicals, Green Deal
RoC Challenge(s)	Challenges 1.1, 2.1, 4.1
Participants	36 participants (full list here)
Further info	Related topic: SC1-BHC-11-2020 - Advancing the safety assessment of chemicals without the use of animal testing
Reference funding	H2020-EU.3.1. - SOCIETAL CHALLENGES - Health, demographic change and well-being ; H2020-EU.3.1.5. - Methods and data, Grant agreement ID: 964537