AT A GLANCE

Acronym: **HEROIC**
Title: Health and Environmental Risks: Organisation, Integration and Cross-fertilisation of Scientific Knowledge

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HEROIC Project

HEALTH AND ENVIRONMENTAL RISKS:
ORGANISATION, INTEGRATION AND CROSS-FERTILISATION
OF SCIENTIFIC KNOWLEDGE

SEVENTH FRAMEWORK PROGRAMME

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THE CHALLENGE

At present, human health and environmental risk assessments are typically conducted independently of each other. This means that data from toxicological and ecotoxicological studies are not readily accessible by risk assessors in the other discipline, and possibilities for synergies are not realised. Risk assessors in both disciplines are facing challenges due to the increasing need for risk assessments (e.g. REACH, toxicity of mixtures), public and legislative pressure to reduce the amount of animal testing, and budget restrictions. It is clear that better coordination and exploitation of existing data is needed to optimise resource use in human and environmental risk assessment.

THE OBJECTIVES

- Contribute to the harmonisation of tools and methods in human and environmental risk assessment by exploring how hazard characterisation and exposure assessment data can be used across disciplines.
- Develop a framework for integrated approaches and methodologies for human and environmental risk assessment (for all chemical classes, also including mixtures).
- Facilitate better understanding and co-operation between stakeholders involved in human and environmental risk assessment, in order to improve the quality, perceived value, and acceptance of integrated risk assessment, thereby helping to improve risk management decisions.

THE APPROACH

- Produce a comprehensive map of key stakeholders, risk assessment processes and legal frameworks, to identify current approaches in risk assessment and priorities for future harmonisation and improvement.
- Examine human and environmental data and models available for hazard characterisation and exposure assessment.
- Evaluate how far these test data and models can be used for extrapolation between human and environmental risk assessment (examining species homologies, relevance of endpoints and modes of action).
- Propose an integrated decision-making framework, using a weight-of-evidence approach, and develop novel integrated testing strategies for data-poor situations.
- Communicate the knowledge produced by the project to the relevant audiences, using dedicated newsletters, peer-reviewed journal articles, workshop proceedings, etc. on the purpose-built open-access website www.heroic-fp7.eu.
- Set up a dedicated data and training platform "Tox-Hub" on the project website (publicly accessible, also after the conclusion of the project).

THE EXPECTED IMPACTS

- Better coordination and exploitation of resources by establishment of a common framework for human and environmental risk assessment, resulting in optimal use of resources.
- Improved quality of human and environmental risk assessments based on novel integrated testing strategies in data-poor situations.
- Improved capacity building for risk assessors across EU member states, through the dedicated data and training platform "Tox-Hub".
- Improved stakeholder and public understanding and acceptance of integrated risk assessment by open-access communication of the knowledge produced within the project.

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