

## **SÉMINAIRE**

## Mechanistic effect models for ecological risk assessment of chemicals: CREAM and the documentation framework TRACE

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Population-level effects of chemicals, for example pesticides, depend not only on exposure and toxicity but also on ecological factors. It is impossible to fully address these factors empirically. Mechanistic effect models, for example ecological models, can solve this problem. They can be used to extrapolate results from single species tests and higher tier tests to the population level and larger scales. Currently, however, there is no common framework that would allow developing such models and assessing their quality in a coherent way. The EU-funded project CREAM ("Mechanistic Effect Models for Ecological Risk Assessments of Chemicals") aims at developing and establishing such a framework. CREAM will not only focus on what Good Modelling Practice is but also on how it can be developed and established. CREAM's central approach will be to use a common framework for documenting the modelling process, dubbed TRACE (Transparent Comprehensive Modelling) documentation. TRACE provides a common structure for organizing and, at the same time, documenting the modelling process on a day-to-day basis. I will demonstrate the use of TRACE using example models. Finally, I will discuss a main further challeng of ecological modelling for chemical risk assessment: the agreement on practical but meaningful population-level endpoints. See the two regional speakers on the SEMOVI web page: http://www.cgmc.univ-lyon1.fr/Semovi/