

Review and evaluation of exposure models in the 4FUN project



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Introduction

- FP6 2-FUN project produced a prototype software containing a library of exposure models, coupling environmental multimedia and pharmacokinetic models.
- FP7 4FUN project will take the results from the 2-FUN project to the market, through a validation and standardization process and dissemination activities.
- Aim of Work Package 2: To analyse the strengths, weaknesses, opportunities and threats (SWOT) of existing exposure assessment tools (including 2-FUN) to identify possible improvement for the exposure assessment of the 4FUN model.



Model evaluation approach

- To compare and evaluate models, a transparent and structured approach is necessary. Multi-Criteria Decision Analysis (MCDA) provides an effective framework for comparing exposure models according to a set of criteria.
- The selected evaluation criteria are organized in a hierarchical structure, base on 4 Lines of Evidence (see below).
- Identified criteria can strongly be related to regulatory frameworks, where exposure to man via the environment is important, such as REACH (EC 1907/2006), Biocidal Product Directive (98/8/EEC)/Regulation (EU 528/2012) and the Plant Protection Products Regulation (EC 1107/2009).

Initialization, input parameters

Input parameters, helpdesk,

manual, software, model output,

etc.

Output, method, sensitivity

analysis, distribution type, scenario

analysis

User

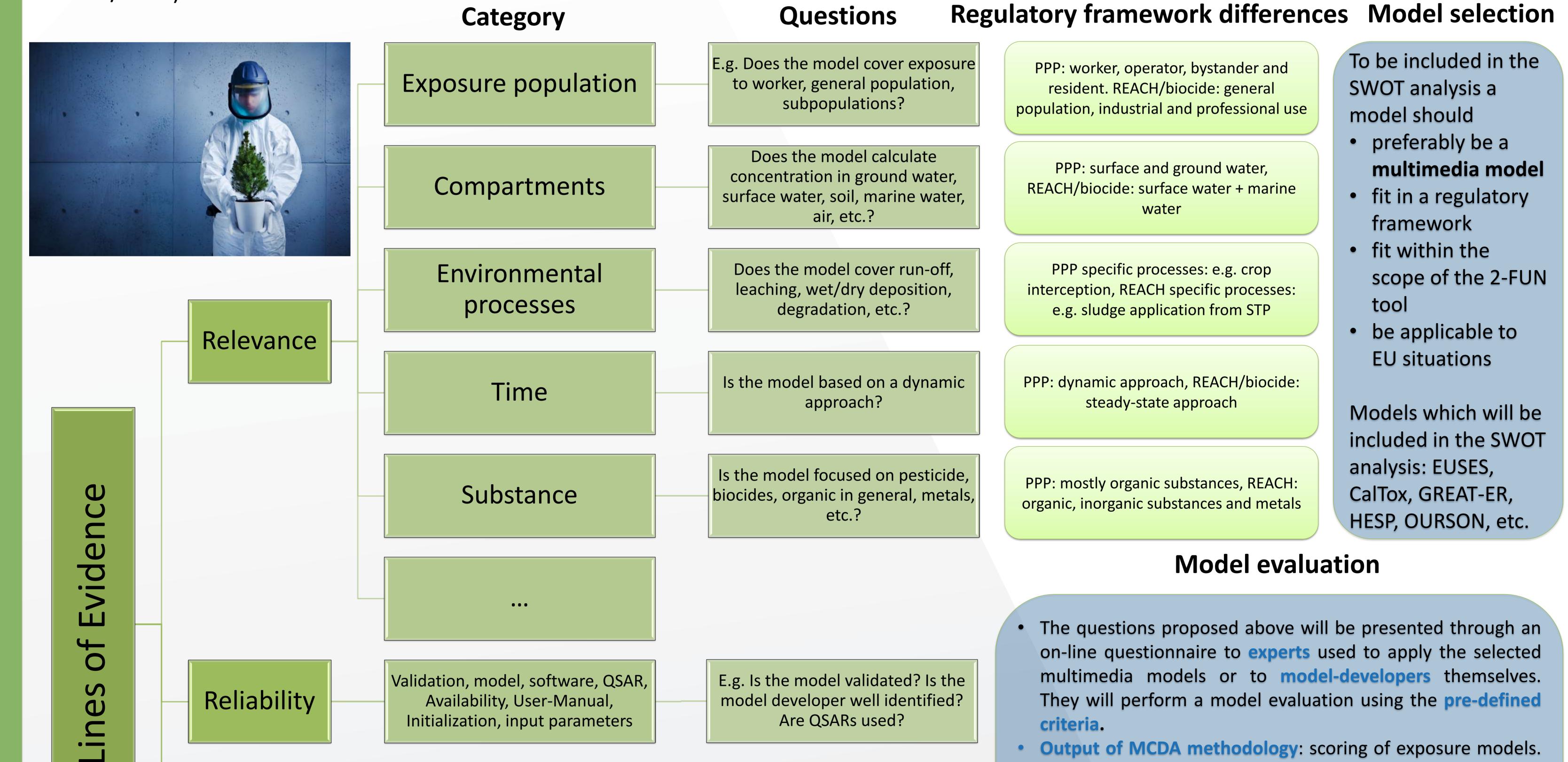
friendliness

Uncertainty

SEVENTH FRAMEWORK

PROGRAMME







Are QSARs used?

E.g. Is it possible to change the

input parameters? Is a user-manual

available? Is it possible to present

the output in tabular form?

E.g. is a scientifically sound

probabilistic method used?

criteria.

appreciated!

refinement of the 2FUN model

Output of MCDA methodology: scoring of exposure models.

This should place the 2FUN model into perspective and

would identify gaps in the existing 2FUN model. The

identified gaps will guide actions aimed at the update and

CALL: People (experts and model developers) who want to

participate in the model evaluation (± 2 hours) are highly