## Risk assessment of multi -step and -condition

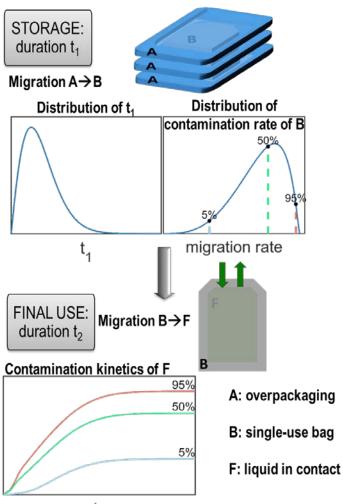
#### process

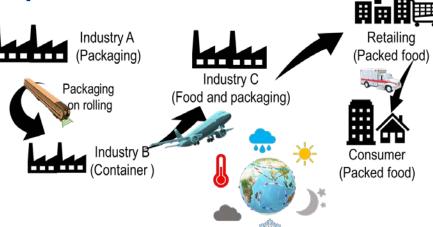
### Issues

- Variation of conditions in the multistep process
- Effects of unknown conditions
- Risk assessment of an entire packaging system

## Our contributions

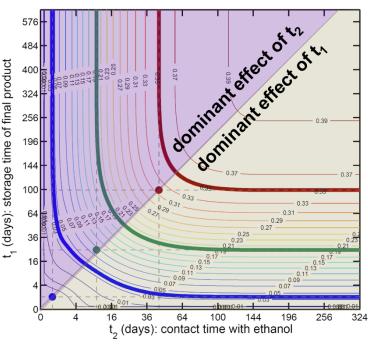
- ✓ Chained scenario interpretation
- ✓ Chained simulation
- Probabilistic modeling
- Identification of transport and thermodynamic properties





# **Application areas**

- ➢Food (over-) packaging
- (Over-) packaging for biotechnological devices, pharmaceutical and cosmetic products



<u>Left</u>: Migration kinetics of an additive originating from overpackaging (A) to food (F) according to the percentiles of the contamination rate of B at the end of the step 1

**<u>Right</u>**: contamination rate of an additive originating from overpackaging (A) to food (F) according to the two contact times.

