

# TTC Workshop Summary and Outlook

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# History and Current Application (I)

- ◆ Long history of the TTC concept
  - ➔ beginnings of testing in the 1950s
  - ➔ Cramer et al. (1978)
  - ➔ Munro et al. (1996)
  - ➔ Kroes et al. (2004)
  - ➔ EFSA (2012)

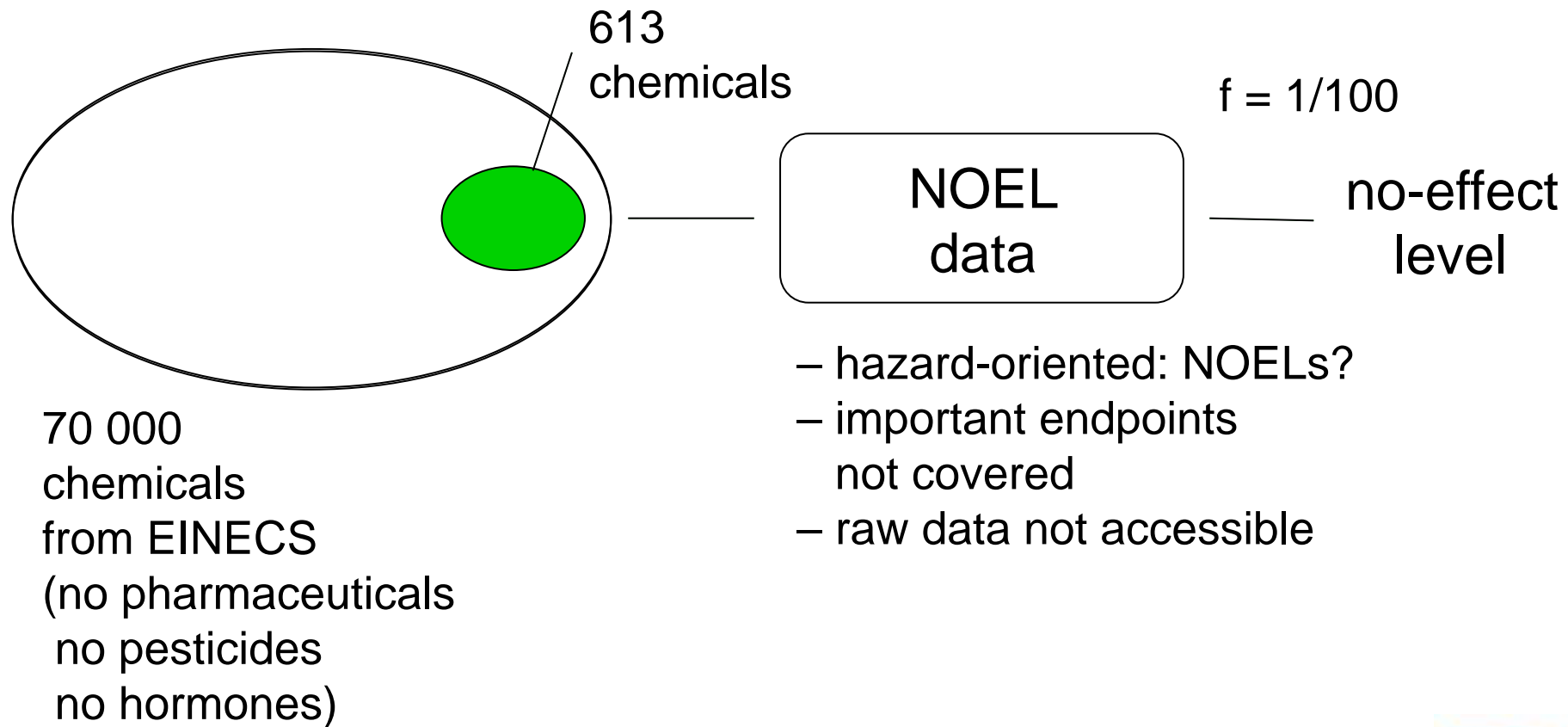
# History and Current Application (II)

- ◆ Decision tree by Cramer et al. (1978),  
underlying rules and reasoning
- ◆ Evaluations; **how conservative is the tool?**
- ◆ Available for users: Toxtree (JRC) and ChemProp (UFZ)

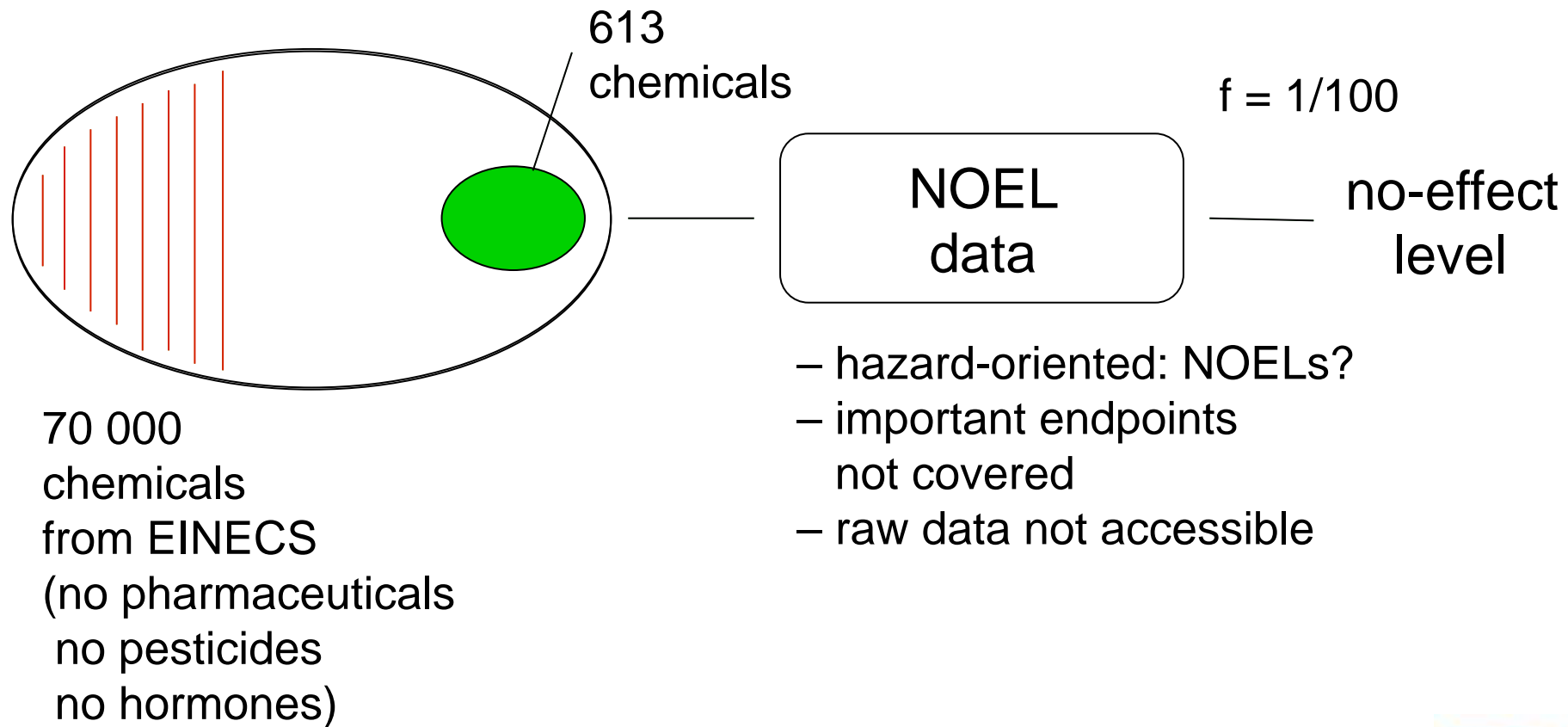
# History and Current Application (III)

- ◆ Current uses for chemicals in FCM in the EU
- ◆ Used in combination with chemical-specific data and as part of an overall strategy
- ◆ Limitations:
  - ➔ exclusion categories: chemicals not represented by the initial 613 chemicals
  - ➔ mixtures
  - ➔ NIAS (?)
- ◆ Again: **how conservative is the concept?**

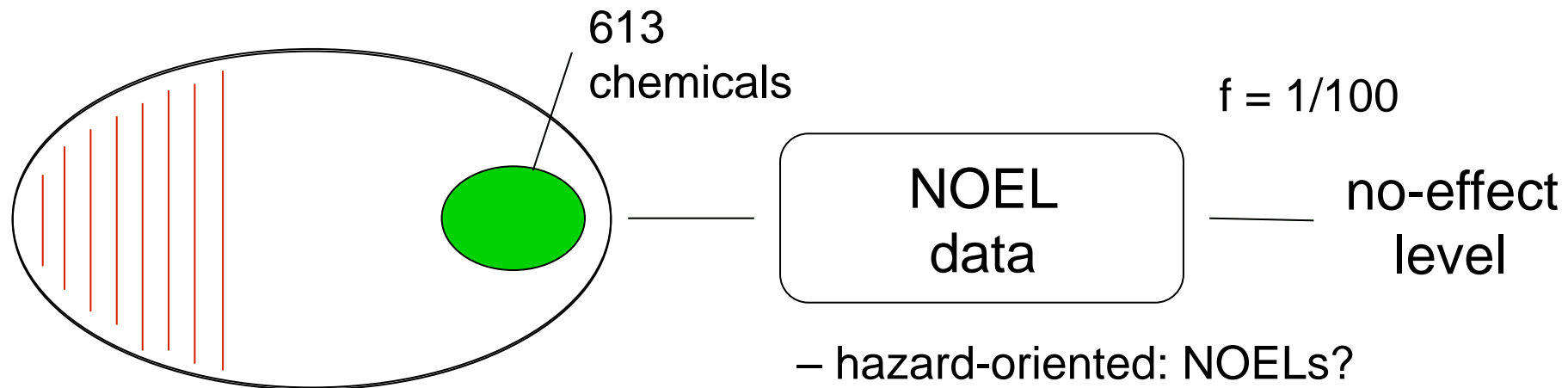
# Applicability Domain and Data Quality



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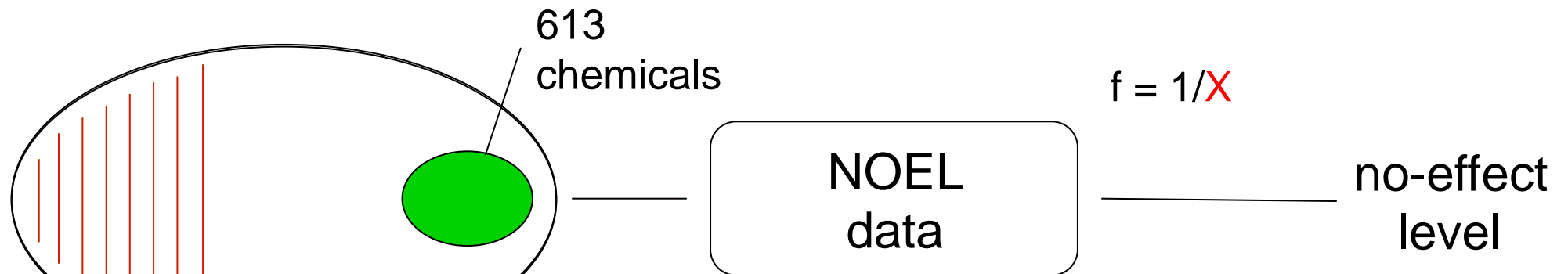


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chemicals  
from EINECS  
(no pharmaceuticals  
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no hormones)

- hazard-oriented: NOELs?
- important endpoints not covered
- raw data not accessible

how would TTC values change if the data were re-evaluated and less reliable data were removed from the set?

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# Mixtures

- ◆ More chemicals: TTC value will have to be **reduced**
- ◆ Number of relevant components of the mixture?
- ◆ Concentrations of these components?
  
- ◆ General problem of mixture effects in risk assessment

# Scientific Committee on Food

- ◆ Revised Guidelines: what are the assumptions for exposure assessment for FCMs?

# Summary

- ◆ What chemical structures? Applicability domain
- ◆ How reliable are the effect data?
- ◆ Mixtures?
- ◆ Low-dose effects?

Decision under uncertainty:

Chemicals that have not been tested,  
but are known to be present in FCM  
need to be represented in the assessment of FCM