



# Development of MetaPath Risk assessor's view

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Trusted science for safe food



# Upcoming assessment demands

- Coming soon (OECD Series on testing and assessment)

New OECD guidance on residue definition soon completed: includes several steps of metabolite characterisation, categorisation and assessment

- Longer term vision (EC Chemicals Strategy for Sustainability)

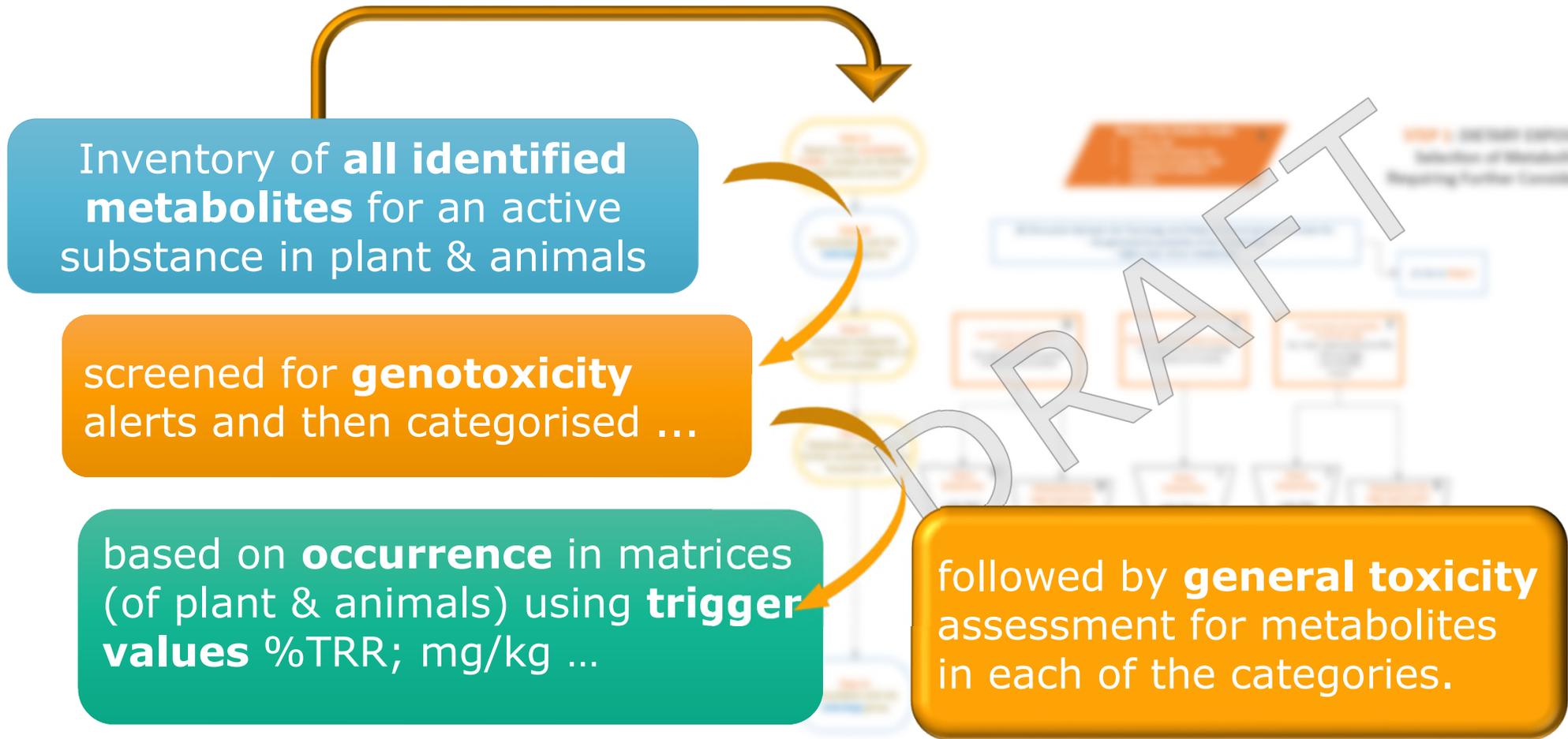
EU research and innovation agenda for chemicals: filling knowledge gaps, promoting innovation and alternative testing methods

One substance – one assessment' concept

- Implementation of new OECD guidance (publication intended in 2023)
- MetaPath has potential for facilitation of metabolite analysis as it holds information on metabolite's
  - occurrence in different matrices
  - % TRR, concentrations mg/kg
  - structures and structural changes
  - position in pathway (upstream/downstream)

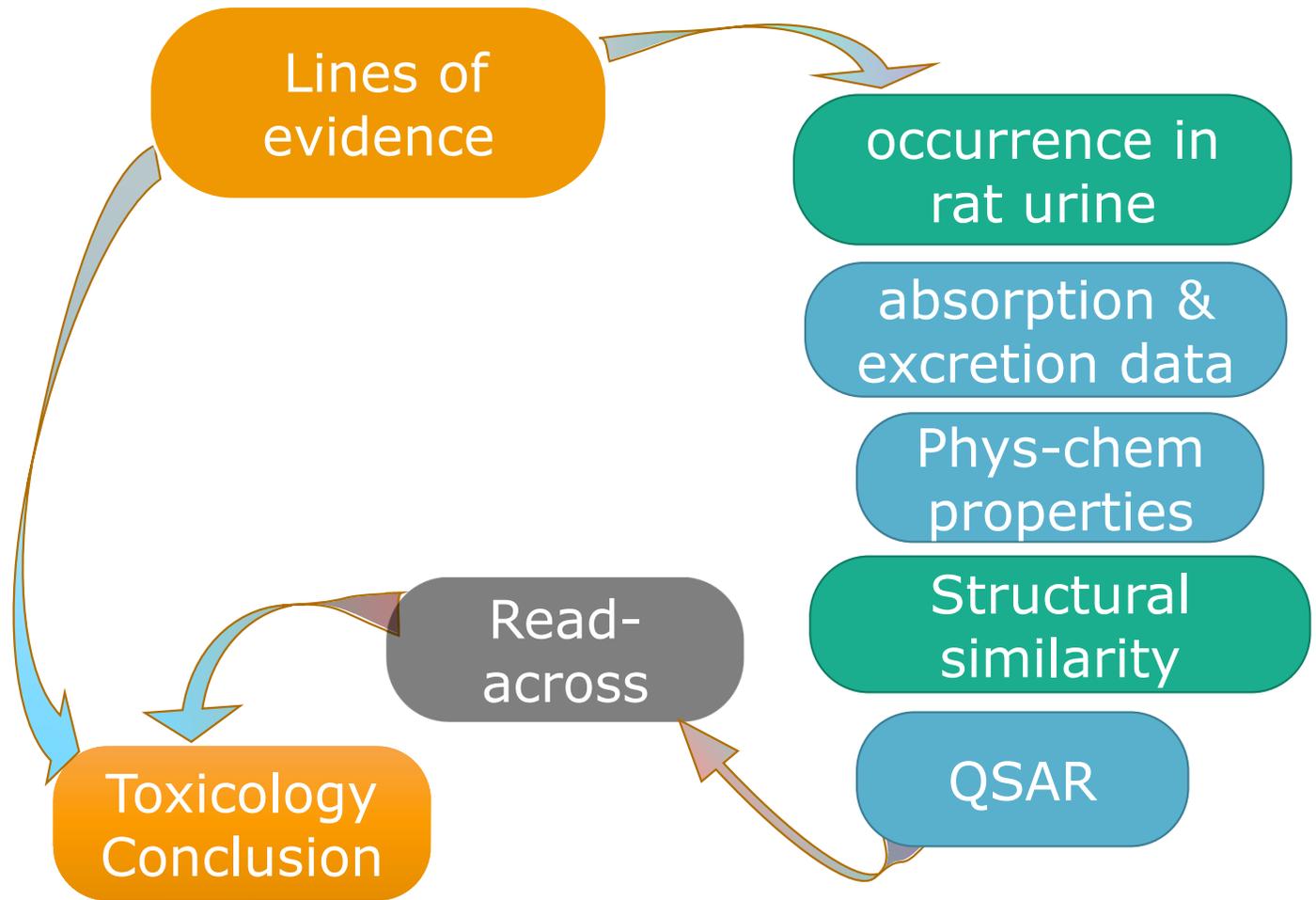
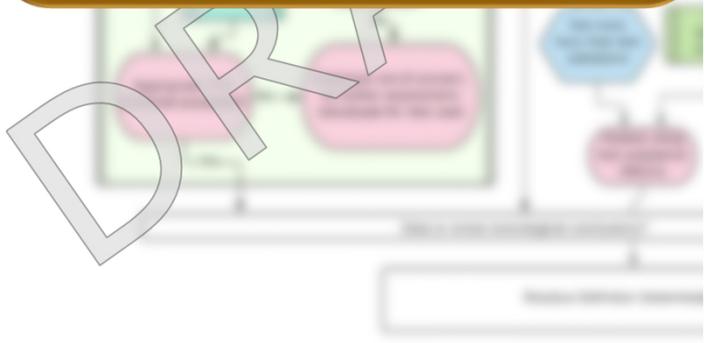
How can MetaPath be developed further / integrated with other tools (e.g. OECD Toolbox) to facilitate assessment of pesticide metabolites (new OECD guidance)?

# Residue metabolite assessment (OECD draft)



# Toxicological metabolite assessment (OECD draft)

If we do not have toxicology data for the metabolite:



# Desired functionality – risk assessor's view

- Support & facilitate
  - Human health risk assessment of pesticide metabolites in line with OECD guidance
  - Generate pertinent inventories and reports
  - Use data beyond structural information, (e.g. occurrence, kinetics & distribution, position in pathway)
  - Interoperate with computational toxicology tools (e.g. OECD toolbox)
- Predict
  - Reconstruction metabolic pathways to refine incomplete pathways (e.g. using reference pathways)
  - Pathway construction for chemicals without any metabolism data
- Extend & connect
  - Environmental assessment area
  - Beyond pesticides area 'One substance – One assessment'

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