Delimitation of monitoring data and PEC models

FOR PARC 6.4.4

# Monitoring data

**General**

* **IF** we need to delimit our request for data, what do we prioritize?
* Last 5 years?

**Pesticide concentrations**

* Are all pesticides and metabolites equally interesting? Or priority for current use pesticides (currently registered within the EU)?
* Which compartments/matrices should be collected?
  + Surface water
  + Groundwater
  + Sediment
  + Biota
  + (Soil)
  + (Air)
  + (Precipitation)
  + More?

**Biological parameters**

* All biota sampling or only at locations where there is pesticide sampling?
* Which organism groups should be collected?
  + Start with only aquatic organisms?
    - Aquatic invertebrates
    - Diatoms
    - Fish
    - Biofilm
    - Amphibians
    - More?

**Auxiliary data**

* Which auxiliary data is crucial for the analyses?
  + Catchment size[[1]](#footnote-1)
  + Percent agricultural land in catchment1
  + Pesticide use data - would be very useful but probably scarce
  + Water flow
  + Precipitation?1
  + Anything for biological data that I am missing?

**Metadata**

* Site coordinates
* Sampling date (and time if available)
* Sampling method (e.g. time integrated, grab sample, event triggered?)
  + Duration/frequency of sampling
* Analytical method
  + Substances analyzed (nondetects are also interesting)
  + Limits of detection, limits of quantification and measurement uncertainty.
* Anything for biological data that I am missing?
* Data owner (and license?)

# PEC models

**Time scale/resolution**

**Spatial scale**

**Processes**

* Sorption
* Degradation
  + Formation of metabolites?

**Transport pathways**

* Surface runoff
* Erosion
* Drainage
* Leaching to groundwater
* Wind-drift

**Fate**

* Sediment?

**Scenarios**

* Define typical scenarios for comparability between models?

1. If unavailable it can possibly be extracted from public databases afterwards if we have sampling coordinates [↑](#footnote-ref-1)