



# PREPARATION OF A PRIORITIZATION CONCEPT FOR THE MONITORING OF BIOCIDES – REFINEMENT OF THE DATA SET USED FOR THE REGULATION OF BIOCIDES

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## Goals and motivation

With the entry into force of the European Biocidal Product Directive (BPD) 98/8/EC<sup>a</sup> in 1998 changes in the use patterns and environmental discharges of biocidal active substances are assumed. At the same time, non-inclusion decisions of substances into the positive lists of annex I or IA of the BPD change the range of active substances that are available. Currently, there is only a poor data set concerning biocides in the environment. The intended improvement of the data will enable a more realistic evaluation of the actual contamination of the environment with biocides. Additionally, the data is a precondition as well as a supportive instrument for an effective and realistic enforcement of the BPD with the following goals:

- Examination of the actual reduction of biocides in the environment
- Review and adjustment of risk mitigation measures
- Monitoring of potentially alternative active substances
- Review and adjustment of used emission scenarios
- Improvement of environmental protection

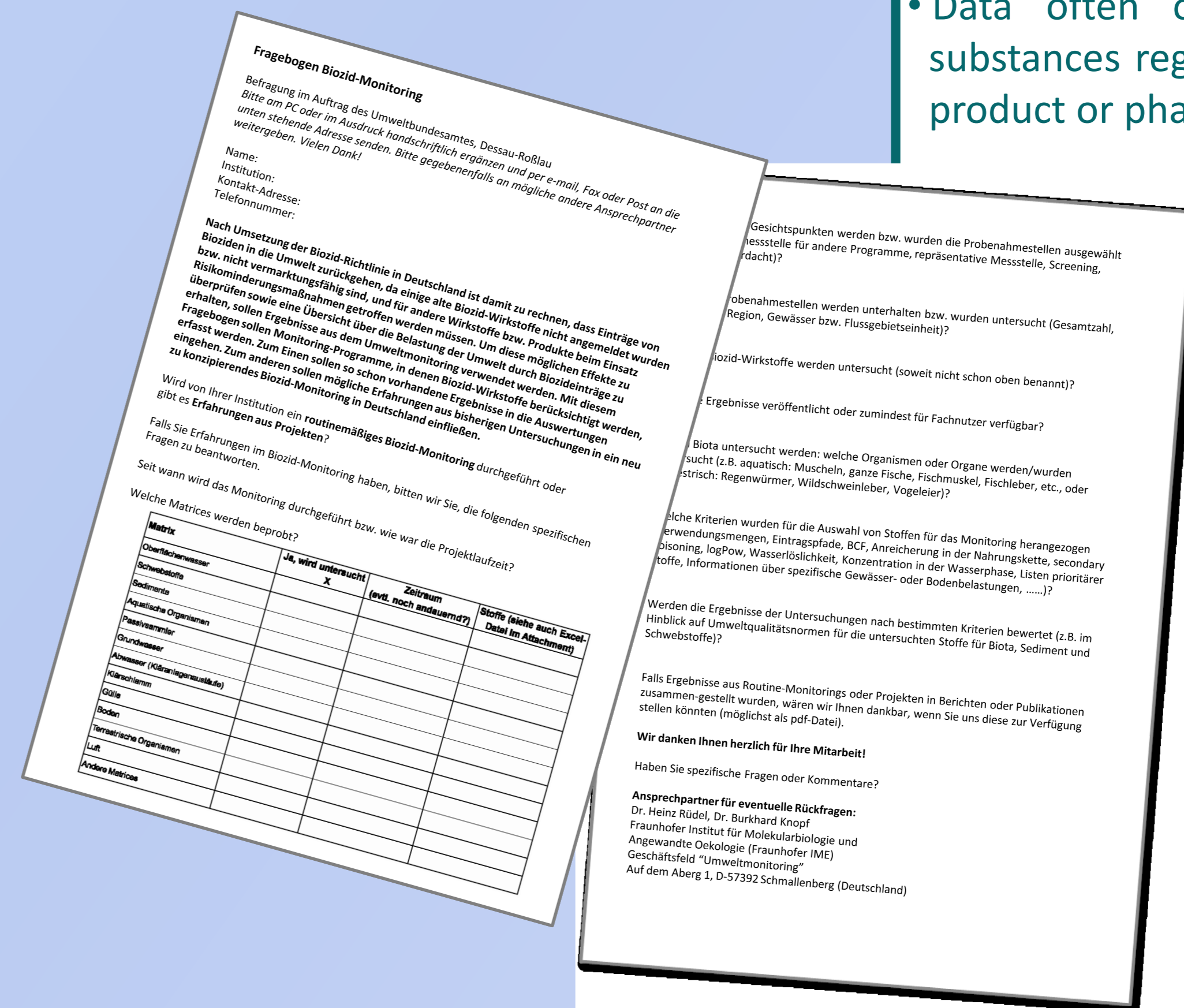
<sup>c</sup> The preparation of a prioritization concept is necessary due to the cost-intensive monitoring and chemical analysis.

### 1 Questionnaires

Monitoring programs and studies on biocides

- 95 organizations in Germany, Austria and Switzerland (Response rate ca. 30 %)
- Data for surface water available in federal states (monitoring obligations by EU WFD or German surface water ordinance (OGewV))
- Only few data for other environmental compartments
- Data often only available for active substances regulated as plant protection product or pharmaceuticals as well

➤ Only few data on biocides available



### Prioritization step 1: Emission relevance

Poor data on consumption or emission of biocides in Germany. Hence, prioritization on the basis of:

- Emission relevant product types (PTs)
- Number of products with the respective active ingredient in the biocide register at Federal Institute for Occupational Safety and Health<sup>b</sup>
- Production and/or import volumes (ESIS data base<sup>c</sup>)
- Concurrent use as plant protection product or pharmaceuticals

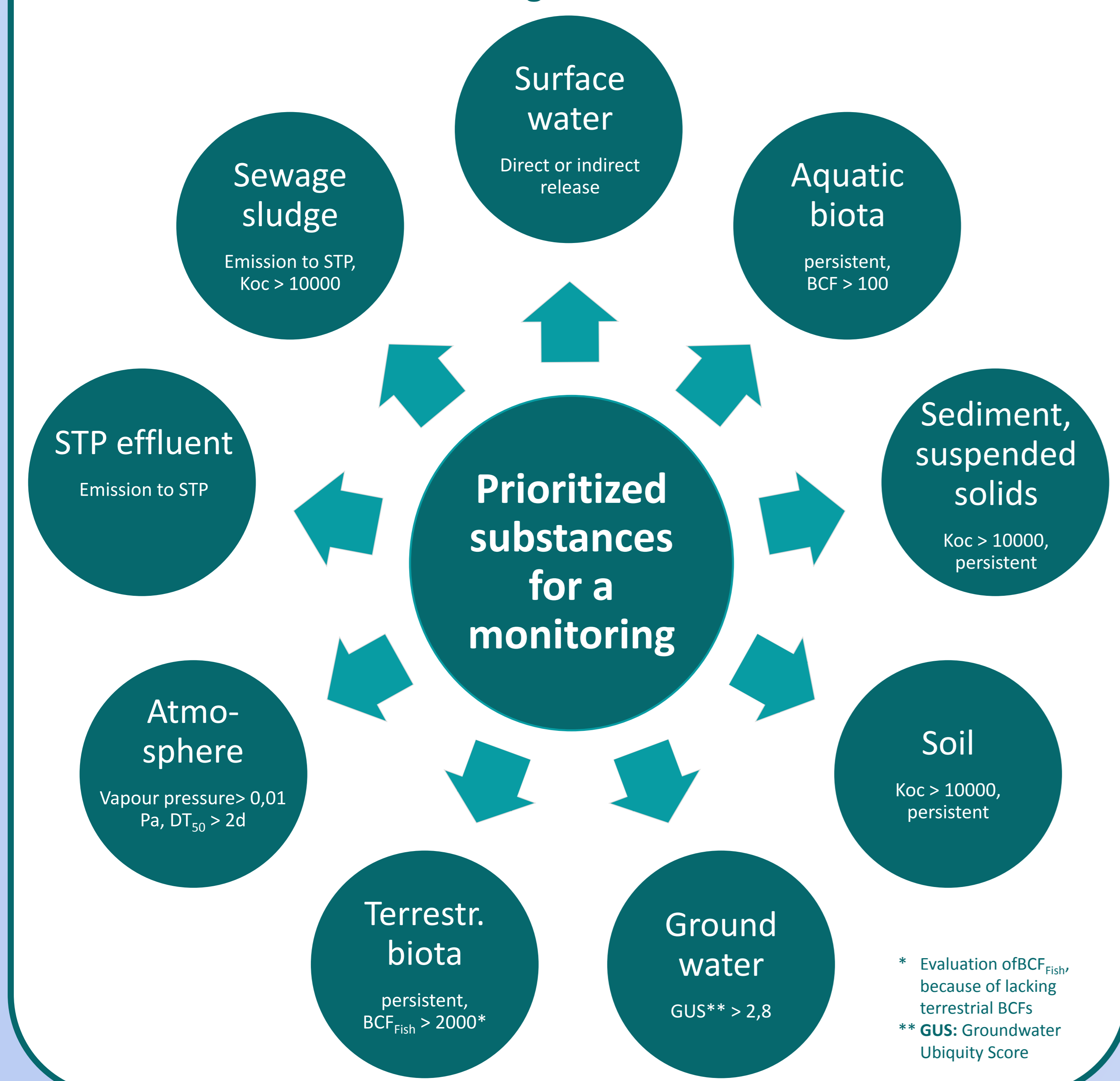
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### Prioritization step 2: Ecotoxicological effects & bioaccumulation

- PNEC derived for aquatic organisms
- Results of PEC/PNEC-assessment in the EU Doc I assessment report for one or more scenarios > 1
- Classification as T or T+
- Bioconcentration factor (BCF) fish

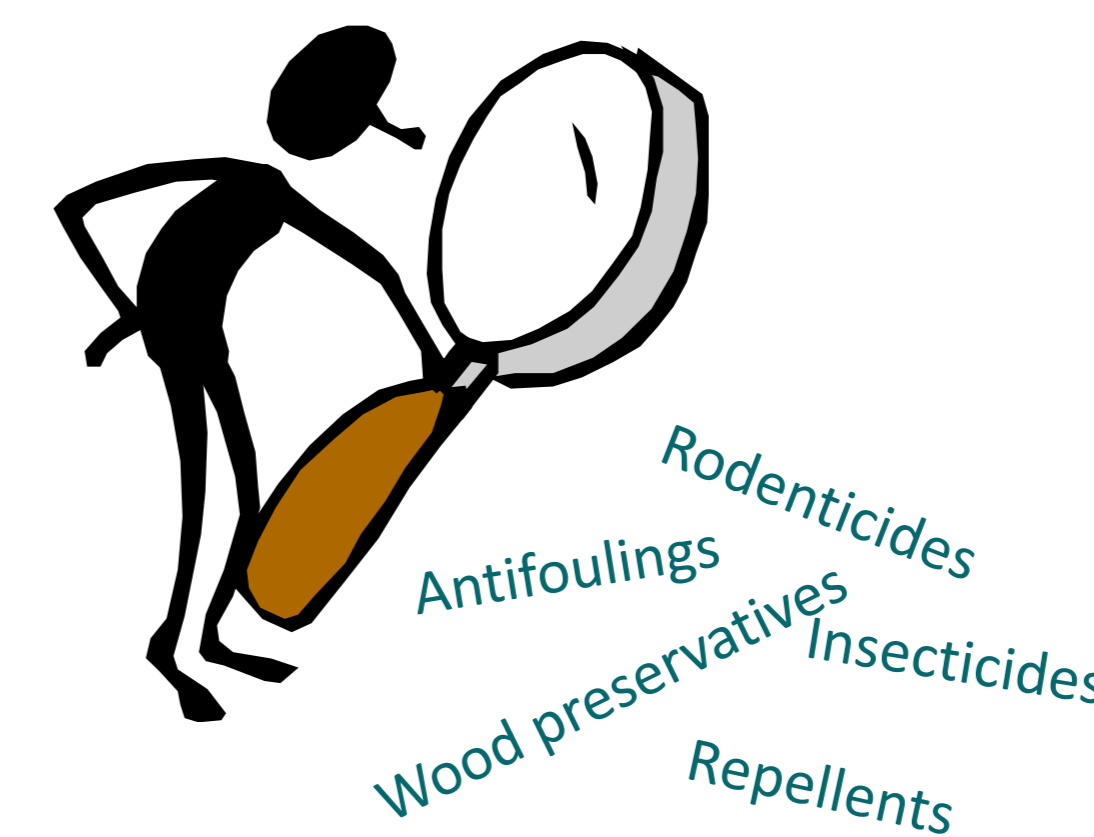
Point system/Summation

### Prioritization step 3: Identification of relevant environmental compartments for a monitoring of biocides<sup>d</sup>



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### Plausibility check of the prioritization concept



- Prioritization of ~80 active substances (rodenticides, wood preservatives, insecticides, repellents and anti-foulings)
- Check for plausibility through matching with monitoring data from the survey or literature reports

## Outlook

### Follow-up project

The research project "Environmental impact of biocides: Development of the cornerstones for a monitoring program focusing on biocidal contaminations in the environment" (FKZ 3712 67 403, duration 08/2012-07/2015) focuses on:

- Examination and completion of the preliminary monitoring concept
- Development of a draft monitoring program
- Sampling, sample preparation and analysis of several substances identified as relevant monitoring candidates
- Evaluation of monitoring data and validation of prioritization concept and monitoring program

<sup>a</sup>EU 1998a, Directive 98/8/EC of the European Parliament and of the Council on the placing on the market of biocidal products

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1998:123:0001:0063:EN:PDF>

<sup>b</sup> Biocide register at Federal Institute for Occupational Safety and Health: <https://www.biozid-meldevorordnung.de/offen/>

<sup>c</sup> ESIS (2011): European chemical Substances Information System, JRC, online database: <http://esis.jrc.ec.europa.eu/>

<sup>d</sup> Data basis EU Competent Authority Reports: <https://circabc.europa.eu>