Checklist method

a result of the

„Plant-related water pollution control technology transfer to Romania, Moldavia and the Ukraine“

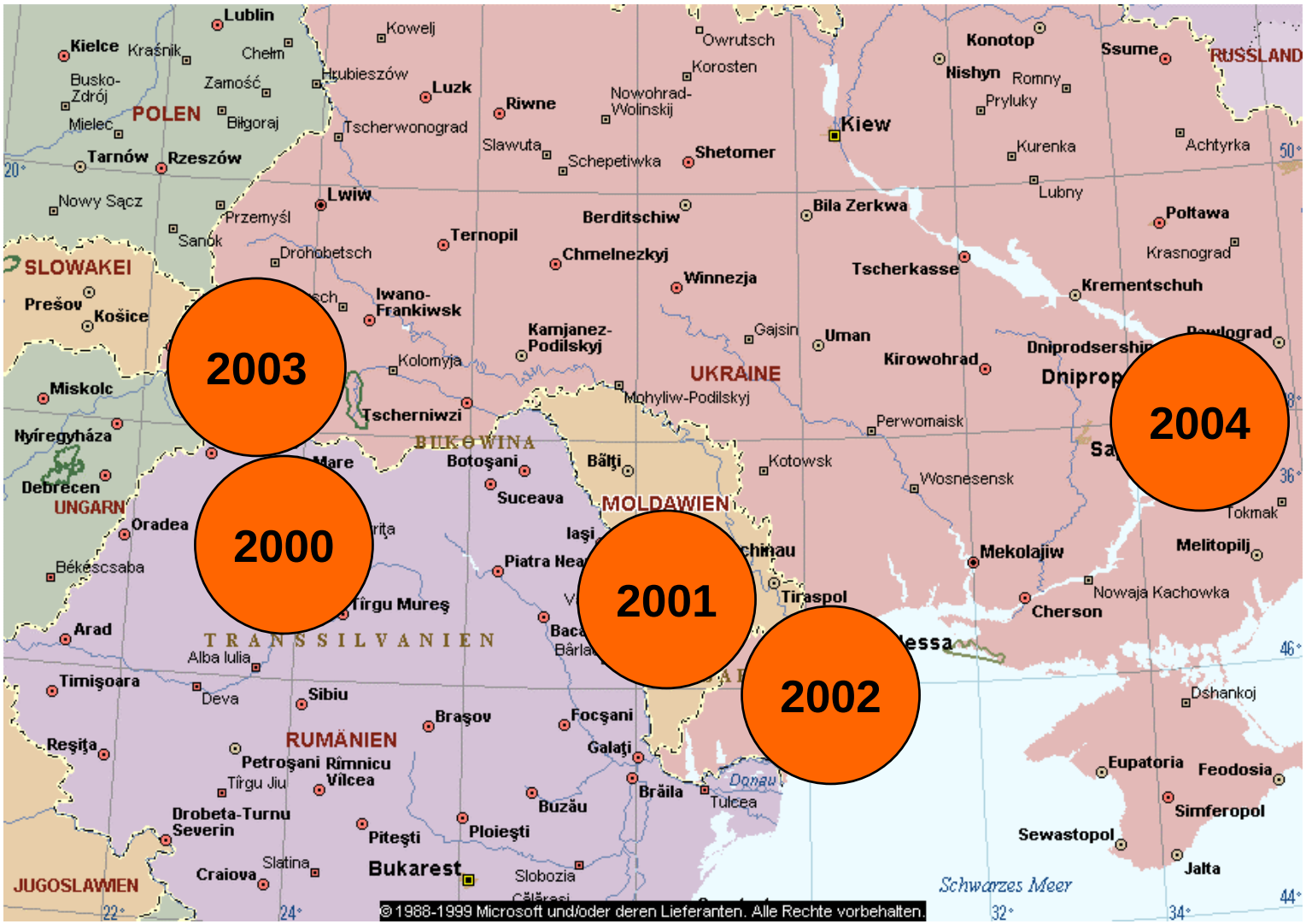
Checklist method

Serious water pollution can be caused by industrial activities

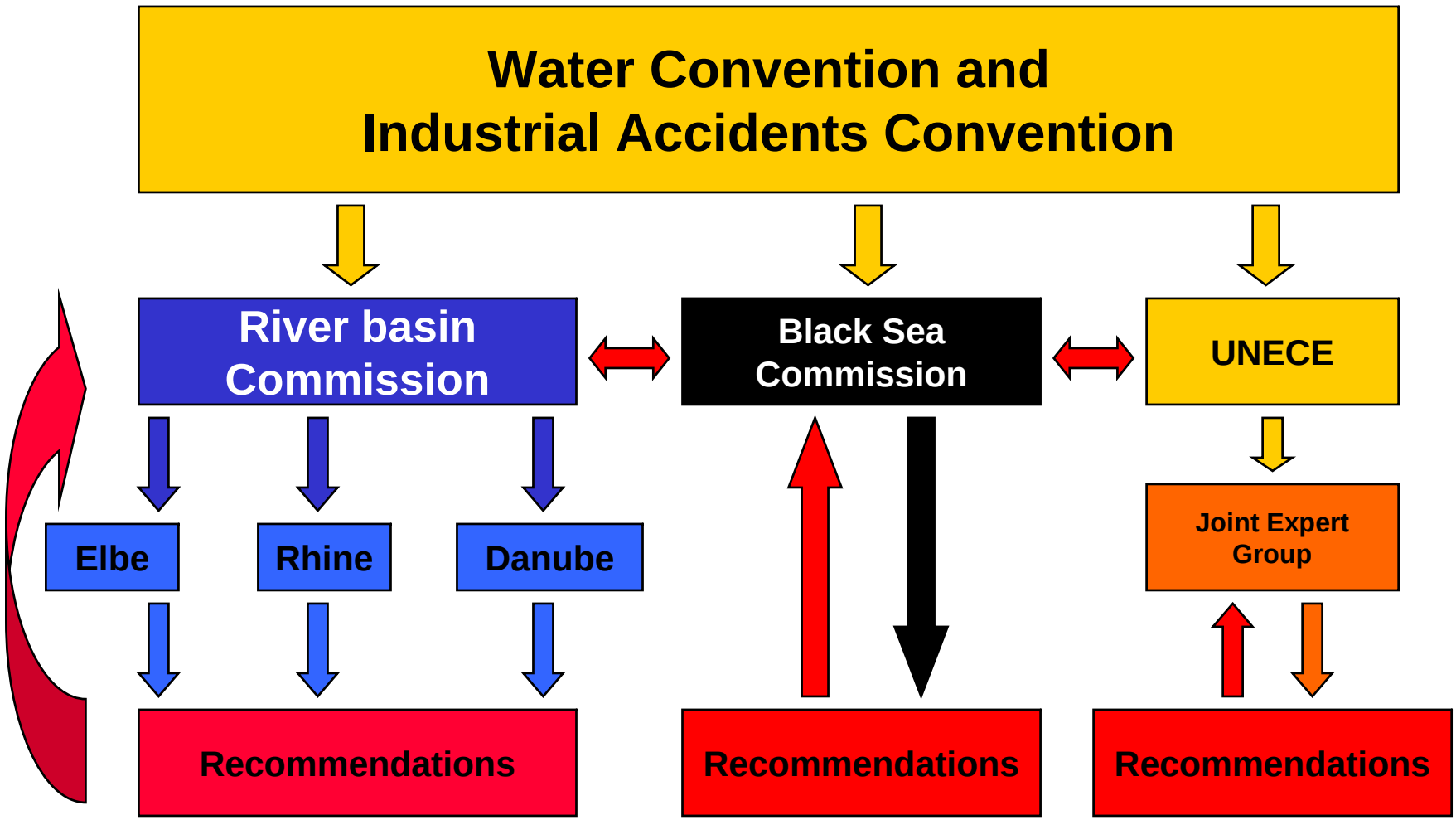
Example: Accident in Baia Mare (Romania), where some 100 000 m³ of cyanide contaminated water from a mining factory flowed through the tributaries of river Somes and Theiss into the Danube

Big industrial companies handling dangerous substances in an amount as listed in column 3 of appendix I of the Seveso guideline are focused upon here.

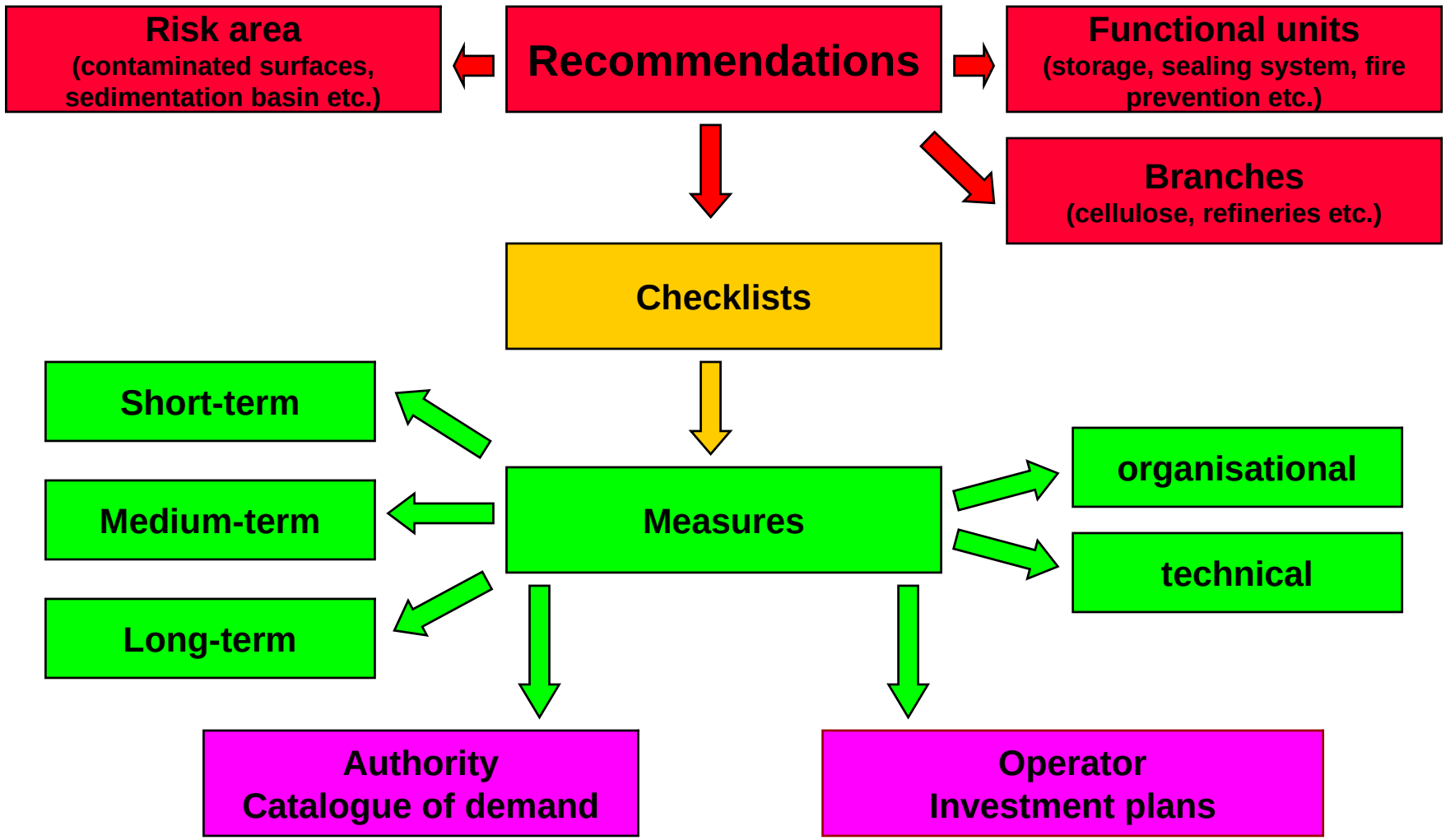
Checklist method



Checklist method

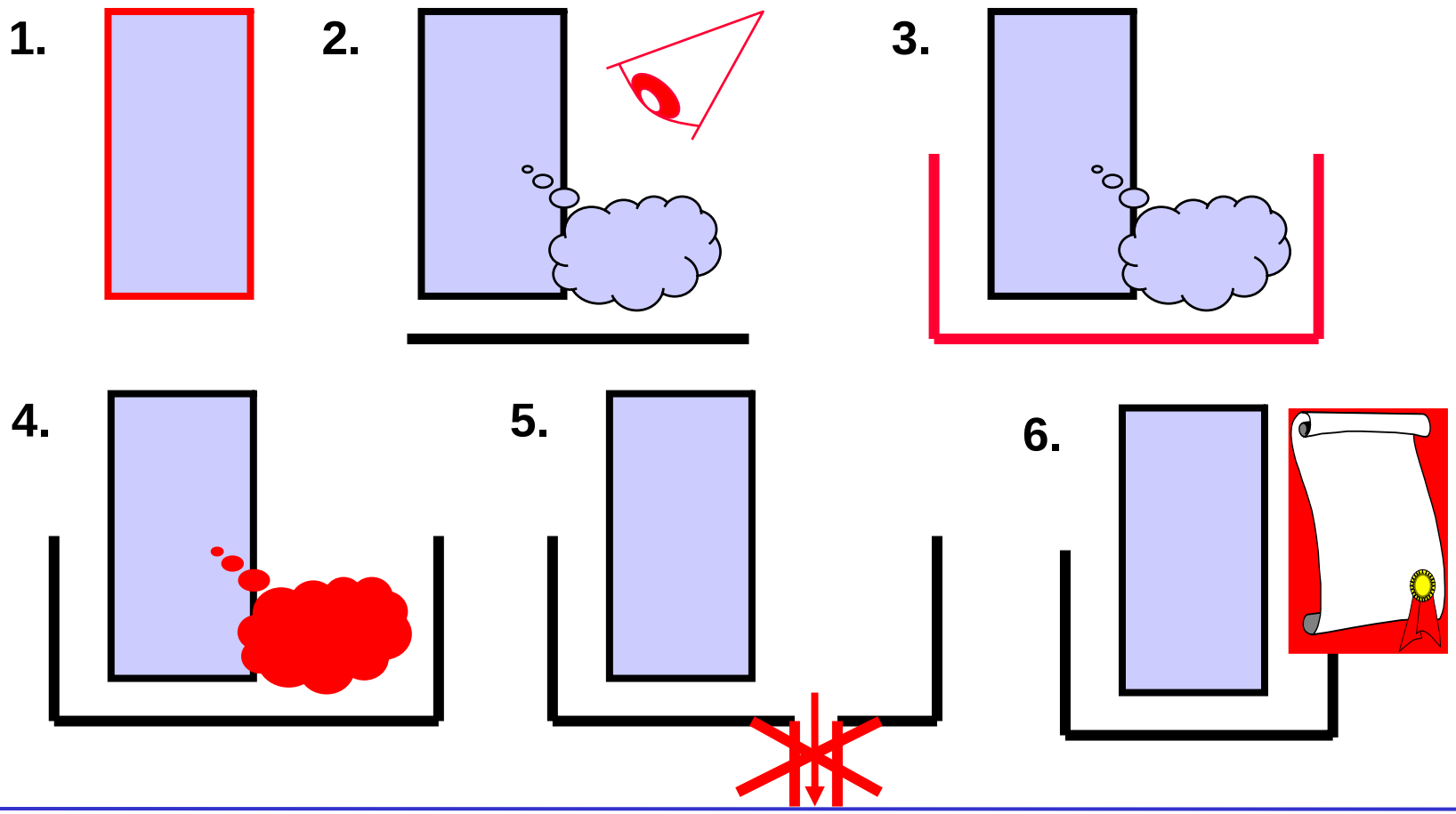


Checklist method



Checklist method

The basis for the ICPR/ICPE recommendations are the polluter pays and precaution principles



Checklist method

- Selected industrial plant are checked with regard to the level of plant related water pollution control.
- Necessary technical and organisational measures for water pollution control are determined on the basis of results of these checks.
- Possibilities for technology transfer could be explored on the basis of the achieved results and the specified measures.

Checklist method

Oil storage

Manufacture of paper

Forest Chemistry

Pharmacy

etc.

Checklist method

Structure of the checklists

- 1. part are the recommendations
- 2. part is the method of querying for verifying the recommendations
- 3. part is the recommendation of measures

Checklist method

Checklist no. 2: Overfill Safety Systems	Page 2 of 7

Recommendations of the International Joint River Bodies for overfill safety systems

1 Containers may not be filled with substances hazardous to water unless an overfill safety system is used.

2 Exceptions to the overfill safety systems requirement may only be made if it is ensured (in particular) that overfilling of the container is prevented by other means (e.g. manual filling with self-closing dispensing pistol).

3 Before the highest permissible filling level is reached, the overfill safety system must either interrupt the filling operation automatically or release an acoustic alarm. (The highest permissible filling level must be determined taking into account the additional amount that will be delivered after interrupting the supply.)

4 Efficiency of the system must be guaranteed at all times.

Checklist method

2 Exceptions

2.1 The filling of a vessel may only take place without an overfilling prevention device in exceptional cases. Do you have an exceptional case?

❒ Yes ❒ No ❒ Not applicable

2.2 In this exceptional case, is overfilling of the vessel or vessels reliably prevented using other means?

❒ Yes ❒ No ❒ Not applicable

2.3 Do you fill vessels manually using dispensing devices with automatic response (dispensing valve or pistol)?

❒ Yes ❒ No ❒ Not applicable

❒ Action ❒ No action

Remarks:

Examples of actions

Short-term measures:

- *Training and instructing the staff to check the level gauging devices regularly and on how to take the right decision if there is a danger of overfilling.*
- *Ensure direct observation of the level in the vessel when filling.*
- *Only fill vessels with at least two operating personnel present.*

Medium-term measures

- *Install dispensing devices with automatic response or weight-controlled filling devices if vessels or mobile containers are filled manually by the operating staff.*
- *Install a level indicator, if in exceptional cases; the vessel is filled without an overfilling prevention device.*

Checklist method

Short-term measures:

Improving the existing sealed surface made of concrete

Repairing uneven floor of the storage including the surrounding and the space for transshipment as well as altering the slop when necessary to avoid spilled products from being washed away by rain. In case this is not possible, the containment should be provided with a boundary.

Laying of pipeline

Medium-term measures:

Erecting of suitable roofing, at least 0,6 of the headroom

Long-term measures:

If there is no suitable roof, collection and treatment of contaminated rain water in a suitable treatment plant should be guaranteed.

Checklist method

Short-term measures:

Measures to reduce foaming should be taken

Medium-term measures:

If foaming can not be stopped by technical means, possibilities for collecting and proper treatment of the foam should be put in place.

Long-term measures:

Erect a secondary protection in form of a containment or

Provide the containers with a double shell

Checklist method

Accidents and careless handling of hazardous substances:

Checklist method

Production of metallic products

Checklist method

Results:

- The checklists method is suitable for checking environmental relevant industrial plants
- ICPD recommended the formulated checklists method for utilization in all countries bordering the Danube
- The checklists method is a flexible and a „living document“